

REPAIR AND UPGRADE CENTRAL PLANT, BLDG. 24

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PROJECT SCHEDULE

PART 1 GENERAL

1.1 QUALIFICATIONS

The Contractor shall designate an authorized representative who shall be responsible for and is equipped/prepared to submit all required project schedule file submissions and required reports as per paragraph entitled Schedule Reports, of this section. Sufficient time via this resource will be allocated by the contractor to develop, implement and maintain an accurate, quality schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS, a Project Schedule as described below shall be prepared. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Sub Contractors and suppliers working on the project shall also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.2 BASIS FOR PAYMENT

The schedule shall be the basis for measuring Contractor progress. Lack of an approved initial baseline schedule, periodic (monthly) schedule updates or scheduling personnel, will result in an inability of the Contracting Officer to evaluate Contractor's progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. In the case where Project Schedule revisions have been directed by the Contracting Officer (and/or its representatives) and those revisions have not subsequently been included in the next due iteration of the Project Schedule, the Contracting Officer may hold progress payments, each payment period, until revisions to the Project Schedule have been made. Revisions to schedules, based on a disapproval of the last submitted schedule via the Contracting officers comments or their representative, must be addressed PRIOR to submission of the next schedule update.

3.3 PROJECT SCHEDULE

The computer software application utilized by the Contractor to produce the Project Schedule shall be the current version of Primavera Enterprise Project Portfolio Management (P6) or Primavera Contractor. Schedules submitted in Microsoft Project format will not be accepted. Failure of the

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Contractor to meet the requirements of this specification shall result in the disapproval of the schedule.

3.3.1 Use of the Critical Path Method

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. This will be accomplished through the use of the above software products as proper general scheduling practices are adhered to.

3.3.2 Level of Detail Required

The Project Schedule shall include an appropriate level of detail as determined by the Contracting Officer or their representative. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule:

All schedule activities shall have at least one predecessor and one successor activity, except for the project start and finish milestones. If, at any time, the Contractor alters his logic, original durations and/or descriptions, adds/deletes/changes activities or activity codes, or in any way modifies the Baseline Schedule or subsequent schedule updates, he must notify the Contracting Officer of the change(s), in writing, presenting the reason(s) for the change(s) in detail. These details/adjustments should be documented in the Project Schedule Narrative, submitted with every schedule submission.

3.3.2.1 Activity Durations & Descriptions

Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods. All non-procurement activities' Original Durations must be less than 20 days. Activities that will take more than 20 days, should be broken out into smaller increments (i.e. by area, location, etc.). Descriptions of Activities should be specific to the area or location (if applicable) in which they are being performed.

Ex. Drywall - Level 1
Drywall - Level 1, Area A, etc.

3.3.2.2 Procurement Activities

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery. Government approval activities will be successors to submittal activities, and unless otherwise specified, will be of a 15 workday or 21 calendar day original duration (depending on the calendar assigned to the task).

3.3.2.3 Construction Activities

Construction activities should be no more than 20 days in length.

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They should be detailed in their description. In most cases, each should have 2 successors: one outside of the trade but within a similar location (if applicable) and one successor inside the trade to assist in making sure the sequencing of the project is kept intact.

Ex. Drywall on 1st floor would have 2 successors: 1. Drywall on 2nd floor (assuming bottom-up buildout), and 2. Tape and Finish on 1st floor. This activity will have at least one predecessor (inwall inspections?) and probably the delivery of drywall material.

3.3.2.4 Required Activities

The following activities (as applicable) shall be listed as separate line activities on the Contractor's project schedule:

- a. Submission (one activity) and approval (another activity) of mechanical/electrical layout drawings.
- b. Submission and approval of O & M manuals.
- c. Submission and approval of as-built drawings.
- d. Submission and approval of installed equipment lists.
- e. Submission and approval of testing, adjusting and balance (TAB).
- f. Submission of TAB specialist design review report.
- g. Submission and approval of fire protection specialist.
- h. Submission and approval of commissioning plans and data.

Note: The Submission of these above activities and their subsequent approval tasks, must be separate tasks since the responsibilities for these tasks are separate entities (i.e. submission tasks belong to the contractor, approvals belong to the gov't).

- i. Air and water balance dates.
- j. Commissioning test dates.
- k. Prefinal inspection.
- l. Correction of punchlist from prefinal inspection.
- m. Final inspection.

3.3.2.5 Required Project Milestones

The following milestones must be present in the schedule, as applicable.

- ¢ Project Start/Notice of Award
- ¢ Notice to Proceed
- ¢ Start and Finish of Structural Erection
- ¢ Building Dry-in
- ¢ Permanent Power On-Line
- ¢ Commissioning Complete
- ¢ Substantial Completion and/or BOD
- ¢ Project Complete

Note: Start Milestones can have start on or before/after constraints and Finish Milestones can have Finish on or before/after constraints. Constrained milestones MUST be driven by preceeding tasks. Constraints can not have open ends or Mandatory Starts and/or Finishes or "Start on" or "Finish On" constraints as these types of constraints supersede logic. Milestones must also have a succeeding task.

3.3.2.6 Government Activities

Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: approvals, inspections, utility tie-in, and Government Furnished Equipment (GFE).

3.3.2.7 Responsibility

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, Contractor work force, or government agency performing a given task. Each activity shall not belong to more than one responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

3.3.2.8 Work Areas/Locations

All activities shall be identified in the project schedule by the work area/Location in which the activity occurs. Activities shall not be allowed to cover more than one work area. The work area of each activity shall be identified by the Work Area Code. This requirements can be accomplished via the Work Breakdown Structure or by Coding.

3.3.2.9 Modification or Claim Number

Any activity that is added or changed by contract modification or used to justify claimed time shall be identified (activity coded) by a mod or claim code that changed the activity. Activities shall not belong to more than one modification or claim item. The modification or claim number of each activity shall be identified by the Mod or Claim Number. Whenever possible, changes shall be added to the schedule by adding new activities. Existing activities shall not normally be changed to reflect modifications. However, the new "Fragnet" or string of activities can be tied into an existing activity should there be an effect on that previously planned activity.

3.3.2.10 Bid Item

All activities shall be identified in the project schedule by the Bid Item to which the activity belongs. An activity shall not contain work in more than one bid item. The bid item for each appropriate activity shall be identified by the Bid Item Code.

3.3.2.11 Category of Work

All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as submittal approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code. In lieu of

activity coding, Work Breakdown Structure will typically satisfy this requirement.

3.3.3 Scheduled Project Completion

The schedule interval shall extend from NTP to the contract completion date. A Hammock or Level of Effort activity should be created to show this duration. The activity would be tied to the start of the project (Start-to-start with 1st activity) and the finish (Finish-to-Finish with last activity) of the project. This will allow for monitoring any fluctuations in the total project duration.

3.3.3.1 Project Start Date

The schedule shall start no earlier than the date on which the NTP was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have an "ES" constraint date equal to the date that the NTP was acknowledged, and a zero day duration.

In a Design-Build (If applicable), could have a Notice of Award, follows by design, permitting, etc.

3.3.3.2 Constraint of Last Activity

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero day duration. In P6, this task would be constrained as a "Finish on or Before" Constraint.

3.3.4 Interim Completion Dates

Contractually specified or contractor specified interim completion dates will be represented by Milestones driven by tasks, and shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

3.3.5 Default Progress Data Disallowed

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports or other field-tracking methods. Failure of the Contractor to document the Actual Start and Finish dates on the Daily Quality Control report or other field-tracking method for every in-progress or completed activity, and failure to ensure that the data contained on the Daily Quality Control reports or other field-tracking methods is the sole basis for schedule updating shall result in the disapproval of the Contractor's schedule and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. Updating of the percent complete and the remaining duration of any activity shall be independent functions. Program features which calculate one of these parameters from the other shall be disabled. This rule is not always necessary. Updating of in-progress tasks should be done by changing the

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remaining duration not the percent complete, to achieve the expected/desired dates/results.

3.3.6 Out-of-Sequence Progress

Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will not be allowed. These out-of-sequence errors will be corrected prior to submitting the current schedule update, by changing the ties or relationships to reflect how the work is actually proceeding. These corrections will also be noted in the schedule progress narrative submitted with the schedule update so that all parties will be aware of these logic changes.

3.3.7 Negative Lags

Lag durations contained in the project schedule shall not have a negative value.

3.3.8 Positive Lags

Finish-to-start relationships (FS) should not have a positive lag associated with them. There are very few instances when this would be appropriate. Activities should be created in lieu of these relationships should a gap between the finish of an activity and a start of the next be necessary.

3.4 PROJECT SCHEDULE SUBMISSIONS

The Contractor shall provide the submissions as described below. The data disks, reports, and network diagrams required for each submission are contained in paragraph SUBMISSION REQUIREMENTS.

3.4.1 Initial Project Schedule Submission (Baseline)

The Initial Project Schedule shall be submitted for approval within 5 calendar days after NTP. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail.

3.4.2 Weekly Construction Progress Meetings

Construction progress meetings shall be held by the contractor on a weekly basis. Topics discussed at the meeting shall include, but are not limited to the following:

- " Safety
- " Schedule
- " Construction Progress
- " Submittal Status
- " RFI's
- " FCR's
- " Issues/Concerns

Attendance shall include the prime contractor, subcontractors (as applicable), and NASA support team as directed by the NASA COTR. Contractor shall document minutes and attendance of of each meeting and distribute copies to all attendees.

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3.4.3 Periodic Schedule Updates

Based on the results of weekly construction progress meetings, the Contractor shall submit monthly schedule updates. These submissions shall enable the Contracting Officer to assess Contractor's progress. If the Contractor fails or refuses to furnish the information and project schedule data, which in the judgment of the Contracting Officer or authorized representative is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

Periodic Schedule updates should take place and be submitted, at a minimum, monthly. Monthly updates will ensure that they are done at the same typical interval as the pay application submission. These monthly submissions, unless otherwise specified, will be due on or before the 25th of the current month, projecting progress through the last work day of that same month. Data Dates for schedule updates should be the first work day of the upcoming month.

Ex. Data date = 12/1/10, schedule submission required by 11/25/10, projecting progress through 11/30/10.

3.5 SUBMISSION REQUIREMENTS

The following items shall be submitted by the Contractor for the initial (baseline) submission, and every periodic project schedule update throughout the life of the project:

3.5.1 Data Disks

Two data disks containing the project schedule shall be provided formatted under MS Windows XP.

3.5.1.1 File Medium

Required data shall be submitted on CD's or DVD's, unless otherwise approved by the Contracting Officer.

3.5.1.2 Disk Label

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Preliminary, Initial, Update, or Change), full contract number, project name, project location, data date, and name and telephone number of person responsible for the schedule.

3.5.1.3 File Name

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will ensure that the names of the files submitted are unique.

3.5.2 Narrative Report

A Narrative Report shall be provided with the initial, and each update of the project schedule. This report shall be provided as the basis of the Contractor's progress payment request. The Narrative Report shall include: a comparison of milestone dates from the current progress update vs. the last progress update with an explanation as to what differences there may

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be between them and why, a description of activities along the 2 most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken or required to be taken. The narrative report is expected to relay to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis. The Narrative should also describe any logic changes that were made and why. The government reserves the right to evaluate and comment on any logic changes made.

3.5.3 Approved (Contract) Changes Verification

Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

3.5.4 Schedule Reports

At a minimum, the format for each activity for the schedule reports listed below shall contain: Activity ID's, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float.

3.5.4.1 Activity Report

For the Initial Project schedule, a list of all activities sorted according to activity number early start date within the WBS. For the Monthly Schedule Updates, only activities not completed need to be included in this report.

3.5.4.2 Logic Report

A list of Preceding and Succeeding activities for every activity in ascending order by early start date within the WBS. Preceding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping. For the un-progressed schedule submissions, all activities should be listed. For the Monthly Schedule Updates, only activities not completed need to be included in this report.

3.5.4.3 Total Float Report

A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall not be shown on this report.

3.5.4.4 Earnings Report

A compilation of the Contractor's Total Earnings on the project from the NTP until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. Activities shall be grouped by bid item and sorted by activity numbers. This report shall: sum all activities in

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a bid item and provide a bid item percent; and complete and sum all bid items to provide a total project percent complete. The printed report shall contain, for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), and Earnings to Date.

3.5.5 Variance Report Comparing Two Schedules

The contractor shall prepare a report showing the differences between the current schedule and the previous schedule (in terms of dates). The two schedules will clearly identify which two schedules are being compared. This report will show the current early dates vs. the previous early dates in the previous schedule. Columns for the variances between them will be shown, as well as total float columns for both schedules. This report can be organized similar to the incomplete activities report.

3.5.5.1 Banding (Work Breakdown Structure)

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area (location).

3.5.5.2 S-Curves

Earnings curves showing projected early and late earnings and earnings to date.

3.6 REQUESTS FOR TIME EXTENSIONS

In the event the Contractor requests an extension of the contract completion date, or any interim contractual milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

3.6.1 Justification of Delay

The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon the project schedule updates in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, will not be a cause for a time extension to the contract completion date. The contract should also be referred to for NASA/Government delay allowances for Weather and Mission Critical time frames. This time must be shown in the Initial Baseline Schedule at time of submission.

3.6.2 Submission Requirements

The Contractor shall submit a justification for each request for a change in the contract completion date of under 2 weeks based upon the most recent schedule update at the time of the NTP or constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

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- a. A list of affected activities, with their associated project schedule activity number.
- b. A brief explanation of the causes of the change.
- c. An analysis of the overall impact of the changes proposed.
- d. A sub-network (Fragnet) of the affected area.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

3.6.3 Additional Submission Requirements

For any requested time extension of over 2 weeks, the Contracting Officer may request an interim update with revised activities for a specific change request. The Contractor shall provide this disk within 4 days of the Contracting Officer's request.

3.7 DIRECTED CHANGES

If the NTP is issued for changes prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within 2 weeks of the NTP being issued. The proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor with suggested revisions to the project schedule. The Contractor shall include these revisions in the project schedule until revisions are submitted, and final changes and impacts have been negotiated. If the Contractor has any objections to the revisions furnished by the Contracting Officer, the Contractor shall advise the Contracting Officer within 2 weeks of receipt of the revisions. Regardless of the objections, the Contractor shall continue to update the schedule with the Contracting Officer's revisions until a mutual agreement in the revisions is reached. If the Contractor fails to submit alternative revisions within 2 weeks of receipt of the Contracting Officer's proposed revisions, the Contractor will be deemed to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will then be the basis for an equitable adjustment for performance of the work.

3.8 OWNERSHIP OF FLOAT

Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

3.9 DISAPPROVAL OF SCHEDULE

Should any schedule submission from the contractor be disapproved, the contractor must resubmit the schedule within 7 calendar days of the disapproval, addressing the concerns of the government. This is particularly true in the case of a schedule update, as corrections must be approved prior to the following months schedule update. Any schedule update showing the project finishing after the contract completion date, will require a recovery plan/schedule be submitted within 7 days showing how the completion date established by the contract will be met or, justification of a time extension necessary.

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-- End of Section --

SECTION K - REPRESENTATIONS, CERTIFICATIONS, AND OTHER STATEMENTS OF OFFERORS

K.1 52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS. (JAN 2011)

- (a)(1) The North American Industry Classification System (NAICS) code for this acquisition is _____ *[insert NAICS code]*.
- (2) The small business size standard is _____ *[insert size standard]*.
- (3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.
- (b)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (d) of this provision applies.
- (2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:
- (i) Paragraph (d) applies.
- (ii) Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.
- (c)(1) The following representations or certifications in ORCA are applicable to this solicitation as indicated:
- (i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—
- (A) The acquisition is to be made under the simplified acquisition procedures in Part 13;
- (B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or
- (C) The solicitation is for utility services for which rates are set by law or regulation.
- (ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.
- (iii) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the clause at 52.204-7, Central Contractor Registration.
- (iv) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—
- (A) Are not set aside for small business concerns;
- (B) Exceed the simplified acquisition threshold; and
- (C) Are for contracts that will be performed in the United States or its outlying areas.
- (v) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.
- (vi) 52.214-14, Place of Performance—Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.
- (vii) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.
- (viii) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(ix) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

(x) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xi) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xii) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xiii) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xiv) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA-designated items.

(xv) 52.225-2, Buy American Act Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xvi) 52.225-4, Buy American Act—Free Trade Agreements—Israeli Trade Act Certificate. (Basic, Alternate I, and Alternate II) This provision applies to solicitations containing the clause at 52.225-3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$67,826, the provision with its Alternate II applies.

(xvii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xviii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan—Certification. This provision applies to all solicitations.

(xix) 52.225-25, Prohibition on Engaging in Sanctioned Activities Relating to Iran-Certification. This provision applies to all solicitations.

(xx) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to—

(A) Solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions; and

(B) For DoD, NASA, and Coast Guard acquisitions, solicitations that contain the clause at 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns.

(2) The following certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

___ (i) 52.219-22, Small Disadvantaged Business Status.

___ (A) Basic.

___ (B) Alternate I.

___ (ii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

___ (iii) 52.222-48, Exemption from Application of the Service Contract Act to Contracts for Maintenance, Calibration, or Repair of Certain Equipment Certification.

___ (iv) 52.222-52, Exemption from Application of the Service Contract Act to Contracts for Certain Services—Certification.

___ (v) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA—Designated Products (Alternate I only).

___ (vi) 52.223-13, Certification of Toxic Chemical Release Reporting.

___ (vii) 52.227-6, Royalty Information.

___ (A) Basic.

___ (B) Alternate I.

___ (viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at <http://orca.bpn.gov>. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [*offeror to insert changes, identifying change by clause number, title, date*]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR CLAUSE #	TITLE	DATE	CHANGE
_____	_____	_____	_____

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on ORCA.

(End of provision)

QUESTIONS AND ANSWERS

Question 178: As noted in section L.21 of NASA's RFP NNJ11353019R, Multiple Award GC IDIQ Contracts—Large Projects, the Safety, Health & Environment Supplement in Section II of Volume I is limited to 15 pages. However, as also noted in L.22-1, D, this Supplement is to include forms 300 and 300A for the prime contractor, covering the current and two previous years. Are the forms 300 and 300A included in the page limit, even if the entity submitting as prime contractor involves a joint venture, multiple divisions, or other teaming arrangement that requires multiple forms 300 and 300A to be submitted for more than one entity?

Answer 178: The page limits were removed for the Safety, Health and Environmental Past Performance Supplement via amendment 2.

Question 179: What was the time frame (year) of the previous contract?

Answer 179: This question does not pertain to the solicitation. The information requested can be obtained through the Freedom of Information Act (FOIA) Office.

Question 180: What was the dollar amount of work completed on the last contract?

Answer 180: This question does not pertain to the solicitation. The information requested can be obtained through the Freedom of Information Act (FOIA) Office.

Question 181: What was the dollar amount of work completed on the last contract per general contractor?

Answer 181: This question does not pertain to the solicitation. The information requested can be obtained through the Freedom of Information Act (FOIA) Office.

Question 182: What was the highest dollar amount for a single project on the last contract?

Answer 182: This question does not pertain to the solicitation. The information requested can be obtained through the Freedom of Information Act (FOIA) Office.

Question 183: a. Does NASA desire a chiller to be provided by a chiller manufacturer who has a local factory direct service organization experienced in servicing large industrial centrifugal chillers to ensure factory service will be available indefinitely?

b. Should the chiller manufacturer provide a description of their local factory direct service organization including the number of qualified industrial centrifugal chiller service technicians employed by the chiller manufacturer in the Houston area to be included in the contractor's proposal to NASA?

Answer 183: a. and b.: Not required

Question 184: *(3) Copy of any and all OSHA and Environmental non-compliance correspondence and citations from federal, state, or local (city-county) agencies or authorities with explanatory remarks in the past three (3) years. This includes violations of federal, state, and local asbestos program regulations, where the regulatory authority may be other than the EPA or a state environmental agency, e.g. a state-county-city department of health.*

- 1) May we submit this information for the Texas region only, or do we need to submit on a national level? (Nationally, information would be drawn from approximately 4,500 completed projects performed over the past three years.)
- 2) May this information be submitted as an attachment to Volume I Past Performance, so it does not count against the 15-page limit for this section?

Answer 184: 1) No, the solicitation requires a copy of any and all OSHA and Environmental non-compliance correspondence and citations from federal, state or local (city-county) agencies or authorities.

2) The page limits were removed for the Safety, Health and Environmental Past Performance Supplement via amendment 2.

Question 185: **L.22-3, B .Other Required Documentation for Award**

Section II

(a) Model Contract

(4) Safety and Health Plan (With bindings) (Ref. L.16)

(5) Small Business Subcontracting Plan (With bindings) (Ref. L.20(1))

(6) Commitment to the Small Business Program (Ref. L.20(2))

(7) Small Disadvantaged Business (SDB) Participation (Ref. L.20(3))

- 1) Is the Safety and Health plan to be submitted to cover the IDIQ contract/RFP or only the Model Task Order?
- 2) Is the Small Business Subcontracting Plan to be submitted to cover the IDIQ contract/RFP or only the Model Task Order?
- 3) Are the goals outlined for the Small Business Participation to cover the entire IDIQ Contract/RFP or only applied to each task assigned?

Answer 185: 1) The Safety and Health Plan to be submitted with the proposal shall be a general Safety and Health Plan for the entire contract, in accordance with the solicitation. It is not specific to the task order project.

2) The Small Business Subcontracting Plan to be submitted with the proposal shall be for the entire IDIQ contract maximum amount, in accordance with the solicitation.

3) The goals outlined for the Small Business Participation are to cover the entire contract in accordance with the solicitation.

Question 186: Are we required to submit our subcontractors' minority certifications with our bid?

Answer 186: No.

Question 187: Section L.21, c. states that "All pages in each volume shall be sequentially numbered."

Will the Government consider excluding Volume III from this requirement since it includes separately bound components (i.e., Safety and Health Plan and Small Business Subcontracting Plan), as well as, letters and documentation from other parties?

Answer 187: In accordance with amendment 2, the model contract and model task order do not need to be paginated. The Safety and Health Plan and the Small Business Subcontracting Plan are an attachment to and a part of the model contract.

Question 188: Is it possible for the General Contractor (Prime) to submit cost breakdowns (Material, Labor, Other) from the vendors and subcontractors 24 hours after the proposal is submitted?

Answer 188: No, the price proposal is due by the proposal submission deadline identified in the solicitation.

Question 189: Is it possible for the General Contractor (Prime) to submit the Small Disadvantaged Business participation plan 24 hours after the proposal is submitted?

Answer 189: No, it should be submitted by the proposal submission deadline identified in the solicitation.

Question 190: The pricing form in attachment 3 looks like a generic form for all projects, will a pricing form specific to this project be issued?

Answer 190: No, offerors may insert or remove divisions from the electronic pricing form (spreadsheet) as applicable. The electronic pricing form (spreadsheet) can be accessed via the RFP link at the following website:
<http://procurement.jsc.nasa.gov/idiql/>.

Question 191: The pricing form in attachment 3 does not have a line item for Division 10 (specialties) please clarify.

Answer 191: Offerors may insert or remove divisions from the electronic pricing form (spreadsheet) as applicable.

Question 192: Will contractor be covered under owners insurance? What are the limits?

Answer 192: No. Please refer to solicitation section I.126 "1852.228-75 Minimum Insurance Coverage".

Question 193: The RFP states to submit the Small Business Subcontracting Plan in Volume 3. The Small Business Subcontracting Plan has dollar amount associated with it. Does the Government want us to still incorporate the Small Business Subcontracting Plan in Volume 3 Technical, or in Volume 2 Price?

Answer 193: The Small Business Subcontracting Plan should be submitted in volume III in accordance with the solicitation.

Question 194: Please verify that the selection process will be conducted in two evaluation phases. The selection of awardees for the MAGC IDIQ, and then selection/award of the task order.

Request extension of submission of offers to February 18, 2011.

Answer 194: The Basic Contract award and Model Task Order award will be conducted as two separate evaluations. The evaluation for the Basic Contract award of multiple IDIQ contracts will be conducted in accordance with Section M, "Evaluation Factors for Award". The evaluation for the Model Task Order award will be conducted in accordance with L.24, Attachment 3, "Model Task Order Solicitation", Section 4.6 "Proposal Evaluation", and will include only those offerors that were selected by the Source Selection Authority for award of a basic contract.

The request for an extension of the submission of offers is duly noted. Any extensions will be issued via amendment to the solicitation.

Question 195: *In Section L (Section 4 – Instruction to Offerors) 4.9 JSC 52.215-109 PROPOSAL MARKING AND DELIVERY. (JUN 2007) "Offerors are cautioned that the delivery process may require an hour or more for packages to be screened through security and subsequently transported and delivered by the Offeror at the designated building while being accompanied by an employee of the U.S. Government."*

- a.) Does the entire delivery process occur at Building 421?
- b.) Where does the security screening take place?
- c.) The above requirement states "and subsequently transported and delivered by the Offeror at the designated building" Is building 421 the designated building?

- d.) If building 421 is the designated building, do we still need to be accompanied by an employee of the US Government?
- e.) How much time does it take to get a US Government Employee assigned to the Offeror for the purposes of transporting and delivering the proposal to the designated building?

Answer 195: a.) No

- b.) The security screening location depends on the delivery method used.
- c.) Building 421 is the designated building if proposals are delivered by commercial delivery service, company employee or other individual agent.
- d.) Yes, if proposals are delivered by commercial delivery service, company employee or other individual agent, unless the individual making the delivery already has a badge for entry onto JSC grounds.
- e.) Please allow at least 24 hours to get a US Government Employee assigned to the offeror for the purposes of transporting and delivering the proposal to the designated building. In accordance with the solicitation, offerors are encouraged to notify the Contracting Officer one day in advance of the proposal submission.

Question 196: What constitutes affirmative delivery of the RFP with respect to the Amendment 1, due date and time of February 11, 2011 at 3:00 PM CST? *Ref: 4.9 JSC 52.215-109 PROPOSAL MARKING AND DELIVERY.(JUN 2007)*

- a.) Is the delivery when the NASA/JSC Building 421 clerk receives the RFP Package?
- b.) Is the delivery when the NASA/JSC Building 421 clerk scans the RFP Package?
- c.) Is the delivery when the NASA/JSC Building 421 clerk delivers RFP Package to the Procurement Office?

Answer 196: Receipt of the proposals at the designated proposal receiving office by the date and time specified in the solicitation via methods identified in the solicitation constitutes affirmative delivery.

Question 197: Volume I: Past Performance

RFP Page 75 of 132

B. Offeror's Construction Project Listing

The offeror shall complete Section L.24, Attachment 5, Offeror's Construction Project Listing, for all construction projects completed within the last 3 years.

Should a Joint Venture offeror provide this attachment completed for the Joint Venture or provide an individual attachment for each of the Joint Venture partners?

Answer 197: A Joint Venture offeror should provide the construction project listing for the Joint Venture unless there is no information to provide on behalf of the Joint Venture, only then should they provide an individual construction project listing for each of the Joint Venture partners.

Question 198: From the site visit overview presentation file 144008-OTHER-004-001.ppt, slide 17 of 78:

SPEC 01 41 00, Contractor Safety and Health Program

Is noted as a safety and health requirement at JSC, however we have been unable to locate this SPEC in the RFP documents provided or through NASA's online services.

Can a copy of SPEC 01 41 00 please be provided with the next amendment?

Answer 198: Specifications and drawings are not available electronically but may be purchased or viewed at the locations identified in solicitation section L.24 Attachment 3, Section 4.12 "Availability of Specifications and Drawings.

Question 199: Is the solicitation Small Business Set Aside since the NAICS Code is 236220 Size Standard?

Answer 199: No, this acquisition is a full and open competition.

Question 200: If this is a Small Business Set Aside with a size standard of \$33.5 Million, why is there a \$50 Million Bond requirement with a \$100 Million aggregate?

Answer 200: This acquisition is not a small business set aside.

Question 201: Will a Bid Bond be required for the Base Bid and each Option individually or as a total of the entire combination of the Base plus all Options?

Answer 201: The bid bond will be required for the total amount proposed.

Question 202: Will an extension of time for the submission of the Solicitation be granted to allow time to address the answers to all questions submitted?

Answer 202: Any extensions granted will be issued as amendments to the solicitation.

Question 203: Will Design Build Task Orders be awarded on best cost value or best technical/design value?

Answer 203: Design build task orders will be awarded in accordance with Federal Acquisition Regulation 36.3 Two-Phase Design-Build Selection Procedures.

Question 204: What is the LEED goal for this and all the MATOC projects?

Answer 204: The Government does not have a LEED goal for the model task order project. The LEED goals for future projects will be specified in future task order solicitations as applicable.

Question 205: Reference (Section, Page, Paragraph)
Section 01 33 00 page 16 paragraph 1.7

The initial status report of materials orders is required within 15 calendar days after NTP and must note the bar chart line item affected. The preliminary schedule, only covering the first 60 days, is not due until 20 calendar days after NTP and initial complete schedule is not due until 40 calendar days after NTP. Are the bar chart line item numbers required in the initial status report?

Answer 205: Yes, this is so that the material ordered or received prior to receiving the schedule can be tracked within the schedule when it is submitted.

Question 206: Reference (Section, Page, Paragraph)
Specification and Drawing package

May we reproduce the drawings package purchased from The Graphics Complex to provide copies to all interested subcontractors? The drawings have copyright markings on them and we would like permission to reproduce them for the purpose of providing a proposal to the Government.

Answer 206: Yes, drawings can be reproduced.

Question 207: Typically, lead paint is abated where the demolition contractor has to cut the pipe. Will the rest of the paint on the pipe need to be abated, or will JSC accept the lead to remain on the pipe when it is placed in their receptacles?

Answer 207: Please reference specification section 01 41 00.00 80 – 1.8.12 “Lead Containing Materials”. It states, where possible “peel-away” chemical strippers should be used to remove lead containing paints from metal structures, siding, decking, and other metal building components before sanding, grinding, drilling, cutting, welding or torching. The paint shall be removed for a distance of at least six (6) inches on either side of the cut line or area to be worked. If welding or torching, paint shall be removed on all sides of the component.

Question 208: Are all pump and chiller CHWP-24-1 housekeeping pads to be retained or replaced per the structural details?

Answer 208: Pad requirements are stated on S-24-73 detail 2.

Question 209: If the Boiler Blowdown Tanks are to be demolished, removed and then backfilled, what is the required PE Stamped Shoring to be utilized for?

Answer 209: As stated in specifications section 05 12 00, for quality assurance and record purposes.

Question 210: What is the required efficiency NPLV for the new chiller? The chiller schedule does not state a requirement for the efficiency NPLV. The specification requires the chiller to be the same as the existing CH-24-2 and -3. Thus should the new chiller be required to have the same NPLV efficiency? If so, what is the NPLV of the existing chillers? Or is it intended that the new chiller does not have an efficiency NPLV requirement?

Answer 210: Please reference specification section 23 64 10 Sub 2.10 "Centrifugal Water-Chiller Package" which states that the "energy efficiency rating shall meet or exceed ASHRAE 90.1 requirements".

Question 211: Must the chiller comply with the chiller performance required on the chiller schedule?

Answer 211: Yes

Question 212: Reference (Section, Page, Paragraph)
Section 01 33 00 Page 17 Paragraph 1.8
Will the Government provide the contractor the design CAD files so the as-built drawings can be updated to reflect the as-built condition?

Answer 212: Yes.

Question 213: Reference (Section, Page, Paragraph)
Section 01 32 02.00 80 page 5 paragraph 3.3.3
Is it a requirement that the schedule of activities use all of the available time in the period of performance?

Answer 213: Yes, the schedule shall extend to the model task order completion date.

Question 214: Is there a requirement for a government contractor furnished Project Management Office located on the Bldg 24 project?

Answer 214: A contractor furnished project management office located at the Building 24 project site is not required, however, in accordance with specification section 3.6.1 Meeting Attendance, the Contractor's Project Manager and Scheduler shall attend the regular progress meetings.

Question 215: Reference (Section, Page, Paragraph)

NA

Are there lightning restriction requirements?

Answer 215: Yes, please reference specification section 01 41 00.00 80 - 1.8.22 Severe Storm Warnings which states "the Contractor shall not perform outdoor construction activities when lightning is within 6 miles of the Center and shall comply with JPR 1700.1, Chapter 5.9 "Weather Safety Requirements".

Question 216: Reference (Section, Page, Paragraph)

01 45 04.00 80 page 6, 1.4.2.1.c

Where is the list of government source non-inspection required under this RFP?

Answer 216: There is no listing for Government source non-inspection. However, in accordance with 1.4.2.1 "Procurement", "the Government reserves the right to inspect any or all of the materials included on this order at the Contractor's plant."

Question 217: Drawing ED-24-6, Option #2 Work

- A. To what extent do we disconnect and demo the circuits for the 250hp chilled water pump?
- B. To what extent do we disconnect and demo the circuits for safe-run control station, stop-start, motor space heater and disconnect switch?
- C. Will the existing breaker in SWG-24-4 and SWG 24-2 need to be tested as per specification 26 00 10.00 80 page 14?
- D. Same question for all breakers that are existing and will be revised under this project over 225 amp.

Answer 217: A. & B. - See note 3 on ED-24-6.

C. & D. - Testing is required. Please reference specification sections 26 00 10.00 80 Paragraph 3.24 Inspection, 3.25 Field Testing, and section 26 05 00.00 40 paragraph 3.9 Field Testing.

Question 218: Drawing E-24-2B and E-24-2E

- A. What extent of all items shown on these sheets is new devices, conduit and wire and what devices are reconnected?

Answer 218: Items inside the clouded areas on the drawing are new and items outside the area but touching the clouds are to be reconnected.

Question 219: Drawing E-24-301

- A. Is all work on this drawing new work for base bid and clouded areas for Option 1?

Answer 219: The clouded area is option 1. Cables P-HE-24-1&2-CTRL-PNL are option 1. Cable P-CH-24-1-CTRL-PNL is base bid. All the other cables are option 2.

Question 220: What steps will the contractor have to make in order to disconnect, remove conduits and wire, and reconnect to the existing switchgear 24-1, 24-2, and all other MCCs or panelboards.

Answer 220: Reference specification section 01 22 00.00 80 paragraph 1.12 – UTILITIES OUTAGES AND TIE-INS

Question 221: Will the contractor be allowed to disconnect loads on switchgear 24-1, 24-1 and all MCCs during normal hours (no overtime) to remove and reinstall conduits and conductors?

Answer 221: In accordance with the specifications, utility outages and utility tie-ins will normally be accomplished during normal off-duty hours. Reference specification section 01 22 00.00 80 paragraph 1.12 – UTILITIES OUTAGES AND TIE-INS.

Question 222: Section 01 33 00 1.3 SD-1 requires that a construction schedule be submitted prior to a notice to proceed. Section 01 32 02.00 80 3.4.1 requires that a preliminary project schedule be submitted within 20 days after notice to proceed and then the initial project schedule be submitted within 40 days of the notice to proceed. Which section takes precedence in this case?

Answer 222: All sections apply as they have four different types of schedules at different times throughout the construction. Note the construction progress schedule identified in Section 01 33 00 1.3 SD-1 is a general reference to a schedule required before the start of the next phase of the construction on a multi-phase construction.

Question 223: If a schedule is required for the proposal submission, what is the level of detail that will be required?

Answer 223: A schedule is not required to be submitted with the proposal.

Question 224: Section 23 05 93 requires an independent test and balancing firm be contracted for the balancing portion of the project. There is no mention of an independent commissioning agent be utilized on this project. Can the commissioning portion of the project be self-performed?

Answer 224: No, specification section 23 64 10 paragraph 3.5.1 states, “tests to demonstrate the general operating characteristics of all equipment shall be conducted by a registered professional engineer or an approved manufacturer's start-up representative experienced in system start-up and testing”.

Question 225: Section 23 64 26 e indicates that Ultrasonic Phased Array Nondestructive testing is an approved weld examination technology. What percentage of the pipe welds are to be tested?

Answer 225: Please reference specification section 3.3.4 “Weld Inspection” and ASME B31.3.

Question 226: Is an independent commissioning firm required to perform the electrical testing, or can that be self performed?

Answer 226: The specifications require electrical test reports to be certified (Reference specification section 28 05 26.00 40) and in accordance with NETA acceptance procedures (Reference specification section 26 60 13.00 40 3.3).

Question 227: Has there been any testing or maintenance on the existing electrical equipment recently?

Answer 227: Yes, the JSC facilities contractor performs regular testing and maintenance on the existing electrical equipment.

Question 228: Are the variable-speed drives, owner supplied and installed or owner supplied contractor installed?

Answer 228: The variable speed drives are owner supplied and installed.

Question 229: The project calls for the piping to be bonded to the existing lightning protection system. Will the contractor be expected to bring the entire system up to current code and/or re-certify the entire system? Ref: Drawing page E-24-7 Notes 1&2

Answer 229: There is no requirement for re-certification, but code shall be met in accordance with the specifications and drawings (Is this true?).

Question 230: Sht. SD-24-9 Opt #2 Should this work be actually part of Base Bid for new C-24-1? New and infill of floor penetrations at C24-1 location. Clarify

Answer 230: No, the work is for option #2 as stated in the drawings.

Question 231: Sht. S-24-72 Details 8,9 & 10 coincide with above question #5, are the new and infill of existing floor penetrations Base Bid or Opt #2? Clarify

Answer 231: The Option #2 references noted in the drawings are correct.

Question 232: There seems to be some confusion as to who is supplying, installing and setting up the controls on this project. Please clarify

Answer 232: In accordance with the specifications and drawings, the offeror will supply, install and set up all controls except for those identified as being supplied by the chiller manufacturer.

Question 233: Will the central plant over head crane be available to move the chiller to rear door and if so what is its capacity?

Answer 233: No, offerors should provide their own lifting devices.

Question 234: Are the boilers shut down for any scheduled periods during the year?

Answer 234: Yes, the boilers are shut down for preventative maintenance during the year. The specific timeframes of the boiler shutdowns are varied, so we can provide no additional information on schedules.

Question 235: Will we be allowed to temporarily remove the glass wall panels to remove and install chillers and surface condenser?

Answer 235: Removal of PEAF panels is an available option.

Question 236: Are the excavated materials on exterior of the building to be considered hazardous waste?

Answer 236: No, please reference drawing C-24-1.

Question 237: Should all excavations be done by hand?

Answer 237: No, please reference specification section 31 23 00.00 20 paragraph 1.7.3 "Utilities".

Question 238: Must the chiller comply with the physical arrangement shown on the project drawings?

Answer 238: No, however, in accordance with specification section 01 45 04.00 80 Paragraph 1.6 - Any deviation (temporary or permanent) initiated by the Contractor from the original stamped design package shall be reviewed, evaluated, and stamped as acceptable by the services of a Professional Architect or Engineer (A/E), when such review is required by the Government.

Question 239: On sheet E-24-2E, Rev 2 Construction note 2, states contractor shall furnish and install motor designed to operate with owner furnished variable speed drive. Is this VSD considered equipment in place already operating, or will this be new GFE provided by NASA.

Answer 239: VSD's will be in place and already operating.

Question 240: For the Safety and Health Plan, we have changed our insurance carrier in 2009, will the Government accept a letter from our insurance broker, in lieu of the insurance carrier?

Answer 240: Yes

Question 241: The solicitation does not list where the Description of Work and Transactions Firm-Fixed Price is to be included in the proposal.

Answer 241: In accordance with the solicitation, pricing submitted with the proposals shall be included in Volume II.

Question 242: Pricing Form Questions:

- a. If the division is not listed in the specification, what should be marked in the cells? N/A, left blank, zero, not inc, etc?
- b. If the General contractor is not performing any work with it's own forces and only providing a management team, does the line item (Gen. Contactor O/H) receive a zero or a N/A?
- c. Note *** at the bottom of the sheet calls out that the Prime "May" submit subcontractor breakdowns in sealed envelope inferring that this is an option, however the last sentence reads "However, if the required data is not received by the stated deadline, the offerer's proposal may be reject. This is contradictory language and confusing. Is the Prime required to submit all of the subcontractors price breakdown proposals? Does this only apply if the Prime is a large business? Please explain this note in detail to avoid conflicts and reduce the risk of contractors getting their proposals thrown out.
- d. Is the note ** "Contractors Commission" referring to the prime contractors mark-up on the subcontractors bids, prime contractors profit on subcontractors bids or is it the over-all mark-ups for all insurance, tax, over-head, profit, etc?
 - i. Along with the above request for clarification please clarify if the general contractors profit line to be the total profit or only the profit on work performed by its own forces, or the profit of the over-all? This line items instructions are contradictory to the item listed above in questions 4)-d. Please advise.

Answer 242: a. If a division is not listed in the specification and the offeror does not have costs associated with that particular division, then the cell on the pricing form relating to that division could either be left blank or the offeror could insert zeros.

b. If the offeror does not have costs associated with a particular category, then the cell on the pricing form relating to that category could either be left blank or the offeror could insert zeros. In addition, please be reminded of solicitation section L.120 "52.236-1 Performance of Work by the Contractor".

c. In accordance with solicitation section L.22-2 "Price..." "Offerors shall complete Section L.24, Attachment 4 – Pricing Form(s) for the prime and any subcontractors. This applies to all offerors. In accordance with the pricing form instructions, Prime Offerors /Contractors have the option of submitting subcontractor breakdowns in sealed envelopes OR subcontractors may submit breakdowns directly to the Contracting Officer by the proposal deadline if they wish to protect their Confidential Business Information from the Prime

Offeror/Contractor. The Prime should so note in its proposal and include the total dollar amount of the subcontractor proposal. However, if the required data is not received by the stated deadline, the offeror's proposal may be rejected.

d. In solicitation section H.6, 1852.243-72 EQUITABLE ADJUSTMENTS, "commission" is defined as profit on work performed by others. As such, on the pricing form, the general contractor's commission line reflects the general contractor's profit on the work performed by its subcontractors. It is based on the subcontractor's direct costs only.

- i. On the pricing form, the general contractor's profit line reflects the general contractor's profit on work performed by its own forces.

Question 243: Section 01 32 02.00 80 requires that the contractor produce the schedule on the latest edition of Microsoft Project. Is Microsoft Project 2007 acceptable?

Answer 243: No. Specification section 01 32 02.00 80 has been revised via this amendment. In accordance with the revised paragraph 3.3 "PROJECT SCHEDULE" "the computer software application utilized by the Contractor to produce the Project Schedule shall be the current version of Primavera Enterprise Project Portfolio Management (P6) or Primavera Contractor. Schedules submitted in Microsoft Project format will not be accepted. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule.

Question 244: Reference (Section, Page, Paragraph)

01 45 04.00 80 page 6, 1.4.2.1.b

Where is the list of government source inspection required under this RFP?

Answer 244: There is no listing at this time. Required Government source inspections will be determined by the Contracting Officer after award of the task order, if necessary. Please reference specification section 01 45 04.00 80 Paragraph 1.4.2.1 d.

Question 245: Drawing E-24-320

A. The transformer 45KVA X-FRMR-A, feeders and Panel PP-A do not exist. If they are required, we will need a specification on the new transformer and direction of conduit and wire and where to connect.

Answer 245: X-FRMR-A and PP-A do not exist and are not required however the feeders are required. Drawing E-24-320 has been deleted and superseded by copies of E-24-6 and E-24-301, updated accordingly via this amendment. (See attachments 10g, 10i and 10k)

Question 246: Chiller Valve Schedule on Drawing page M-24-3 refers to Notes 1, 2, &3. Only Note 1 is shown. What are Notes 2 & 3?

Answer 246: Notes 2 and 3 got cut off during the reproduction of the drawings. Note 2 should read "Oil Cooler Isolation Valves." Note 3 should read "Existing to Remain". Please see the attached CAD drawing. (See attachment 10m)

Question 247: Section 01 22 00.00 80 sub 1.18.2 states that the government will handle the disposal of lead contaminated materials, including furnishing the dumpsters and transportation. Section 02 82 33.13 20 sub 3.5.2.1 requires that the contractor supply a certificate that the disposal facility is approved for lead disposal and that the waste was accepted by the facility. Sub 3.5.3 requires that the signed manifest be returned to the government prior to issuing payment for the disposal. These sections contradict each other. Please clarify.

Answer 247: Section 02 82 33.13 20 has been deleted from the specification requirements via this amendment.

Question 248: a) Drawing M-24-232 keyed note 23 Emergency Supply Cabinet. Is this cabinet by owner, Salvaged from Drawing MD-24-232 keyed note 9? No specification.

b) Sht. SD-24-6 Second Floor Opt #2 - Should this work be actually Base Bid? Demo of existing C-24-1 mechanical pad. Clarify

Answer 248: a) No, this cabinet is not salvaged and should be provided in accordance with drawing M-24-232 keyed note 23.

b) No, please see the updated drawing SD-24-6 attached with this amendment. (See attachment 10t)

Question 249: Sht. S-24-6A Opt #2 Second Floor Section 1/6a-71 is the new equipment pad and pipe stands Opt#2 or Base Bid? Clarify

Answer 249: The drawings were clouded in error. Please see the updated drawing S-24-6A attached with this amendment. (See attachment 10o)

Question 250: Are the Chiller Service Platforms on Sht. S-24-69, 70 & 71, Opt #2 or Base Bid? Clarify

Answer 250: The reference to Option #2 on the drawings are in error, and should be base bid. The updated drawings are attached to this amendment. (See attachments 10p, 10q and 10r)

Question 251: On sheet E-24-50A, clouded flag note states entire sheet option 3, yet option 3 identified in the scope is the elevated structural platform. Please clarify.

Answer 251: Clouded flag on drawing is in error. The work shown on this drawing is option #2. The drawing has been updated via this amendment. (See attachment 10h)

Question 252: With the limited size requirement of \$33.5 Million, and a potential of a \$400 Million Max contract, will amounts over the \$33.5 Million be allowed as an aggregate value of Small Business and its Team Partners?

Answer 252: Yes, amounts over \$33.5M are allowed. This acquisition is not a set aside. The FAR requires Small Business Program Representations in solicitations exceeding the micro-purchase threshold when the contract will be performed in the United States or its outlying areas. The size requirement allows offerors to appropriately represent themselves as small or large business firms.

Question 253: Please include drawing E-24-324 2nd Floor switchgear and MCC area for connection of required circuits.

Answer 253: Switchgear and MCC shown on E-24-7.

Question 254: Reference (Section, Page, Paragraph)
Section 23 64 10, Paragraph 2.6 Cooler and Condenser Heat Exchangers
Confirm that specified chiller performance as scheduled on drawing M-24-3 is based on the specified fouling factor of .005ff for the evaporator and .01ff for the condenser. This question is asked because the current industry values for fouling factors are .0001ff for the evaporator and, 00025ff for the condenser. The deviation in specified value from ARI norm has a significant impact on chiller selected performance.

Answer 254: The fouling factors stated in the specifications are outdated. The evaporator fouling factor and the condenser fouling factor shall be per ARI Standard 550/590 (1998). The specifications are updated via this amendment. (See attachments 10c and 10d)

Question 255: Reference (Section, Page, Paragraph)
Section 01 32 02.00 80 page 4 paragraph 3.3.2.3

Item G references fire protection. Is this anticipating fireproofing repair or fire sprinkler work?

Answer 255: No, there is no fireproofing repair or sprinkler work associated with this task order.

Question 256: Is the cost for the building permit to be included in our proposal?

Answer 256: The offeror's price proposal should be reasonable for the work to be performed and reflect an understanding of the task order requirements.

Question 257: Regarding page ED-24-6: This page includes a cloud that reads, "Entire Page is Option 3." Yet the details are "CHWP 24-1, 2,3,4,5,6, & 7." Should the offeror Disregard the Option 3 cloud?

Answer 257: The reference to Option #3 on the drawing is in error, and should be base bid. The updated drawing is attached to this amendment. (See attachment 10v)

Question 258: Will contractor be responsible for any ADA upgrades?

Answer 258: If by saying ADA you're referring to the Americans with Disabilities Act, it does not apply to the model task order project.

Question 259: Will contractor have access to the existing overhead crane for use during the project?

Answer 259: No, offerors should provide their own lifting devices.

Question 260: Are there any repairs, upgrades needed for the existing overhead crane?

Answer 260: No

Question 261: On SD-24-3 "first floor demo plan" is the only work in the clouded area shown? Please clarify.

Answer 261: No, SD-24-3 is a structural drawing; also reference the other solicitation drawings (mechanical, electrical, and civil) and specifications.

Question 262: What are the minimum requirements for contractors onsite personnel? Can SSHO have other duties such as site superintendent?

Answer 262: Dual roles are not prohibited however, all requirements of the contract must be met.

Question 263: Specification section 01 74 19 part 1.2 indicates a minimum of 45% of total Project solid waste is to be diverted from the landfill. Will recycling above this Percentage be considered a requirement if it is obtainable?

Answer 263: No

Question 264: The chiller (C-24-1) valve schedule on drawing M-24-3 references notes 1, 2, and 3. Please provide the written description for notes 2 and 3.

Answer 264: Notes 2 and 3 got cut off during the reproduction of the drawings. Note 2 should read "Oil Cooler Isolation Valves." Note 3 should read "Existing to Remain". (See attachment 10m)

Question 265: General Note 4 and Keyed note 2 on sheet MD-24-232 call out that Lead paint existing in the existing steam lines and refers the reader to sheet M-24-2 for instructions. Sheet M-24-2 was not included in the RFQ Package.

Answer 265: Drawing M-24-2 was included in the drawing package.

Question 266: Sheet MD-24-232 does not call out which scopes of work are to be performed within the differing options.

Answer 266: This is an overview drawing. Options are identified on other drawings and specifications.

Question 267: Sheets M-24-250 and M-24-251 have Manufacturer 1 and Manufacturer 2 listed on the title block. Are we to interpret that the points list on each page is for a certain manufacturer or is this a misnomer and the second page is just a continuation of the list?

Answer 267: The second page is just a continuation of the list.

Question 268: Sheet S-24-69 calls the sheet as option 2. Please confirm that this is the correct option and provide elevations.

Answer 268: The reference to Option #2 on the drawing is in error, and should be base bid. The updated drawing is attached to this amendment. (See attachment 10p)

Question 269: We will assume, the Government will dispose of the hazardous material (if any) off-site and provide a dumpster for disposal in close proximity of work areas. Is this correct? Please explain.

Answer 269: No. In accordance with specification section 01 22 00.00 80, the Government will handle the disposal of lead contaminated materials and debris caused by paint removal or disturbance and furnish to the Contractor disposal dumpsters, including the transportation. The construction contractor will be responsible for recording, notifying and disposing of all other abatements in accordance with the solicitation.

Question 270: Can the Superintendent and Quality Control Manager be the same person?

Answer 270: Dual roles are not prohibited however, all requirements of the contract must be met.

Question 271: Is Building 24 a Mission Critical building or are there any specific rooms that are Mission Critical?

Answer 271: The entire building is mission critical.

Question 272: Sheet MD-24-232, note 1 -- repair vent roof penetrations, what is the roof type for Building 24?

Answer 272: Please refer to amendment 2, attachment 6.

Question 273: S-24-69 Chiller Service Platforms Plans – note shows as Option 2, should this be base bid?

Answer 273: The reference to Option #2 on the drawing is in error, and should be base bid. The updated drawing is attached to this amendment. (See attachment 10p)

Question 274: SD-24-9 Penetrations and infill for piping, noted as Option 2, should this be base bid?

Answer 274: Yes, the work is for base bid and not option #2. Drawing SD -24-9 is updated per this amendment. (See attachment 10u)

Question 275: M-24-3 Value scheduled for Chiller Notes 2 & 3 are not listed. Please provide.

Answer 275: Notes 2 and 3 got cut off during the reproduction of the drawings. Note 2 should read “ Oil Cooler Isolation Valves.” Note 3 should read “Existing to Remain”. (See attachment 10m)

Question 276: ED-24-6 The sheet is noted as “Entire Sheet Option #3”. Should this be broken out into Base Bid and Options 1 & 2?

Answer 276: The reference to Option #3 on the drawing is in error. The updated drawing is attached to this amendment. (See attachment 10v)

Question 277: E-24-50A The sheet is noted as “Entire Sheet Option #3.” Should this be Option #2?

Answer 277: Clouded flag on drawing is in error. The work shown on this drawing is option #2. The drawing has been updated via this amendment. (See attachment 10h)

Question 278: Once a duration is established will it be for the Base Bid only or is to be inclusive of each option?

Answer 278: Inclusive of base bid and all options.

Question 279: Will a laydown yard be provided adjacent to Bldg 24 for a Job Trailer and construction materials?

Answer 279: Yes

Question 280: In reference to the Building 24 Chiller Replacement: Drawing sheet ED-24-6 – Demolitions 1st Floor Power Plan is noted that “Entire Sheet is Option #3”, shouldn't the entire sheet be Option #2?

Answer 280: The reference to Option #3 on the drawing is in error. The updated drawing is attached to this amendment. (See attachment 10v)

Question 281: We have been reviewing the RFP noted above and wanted to ask you if you were expecting the Contractors to include information on Architectural Firms that may be a part of a Design/Build project that might be generated from this contract.

Answer 281: There is no requirement to team. Should you desire to team, please be reminded to fill in H.11, Teaming Partners and Affiliated Companies as well as to follow the instructions in L.22-1 A., Past Performance Information Summary. Your proposal should demonstrate the full range of capabilities in accordance with the Past Performance Information Summary and will be evaluated accordingly. As far as any future design/build projects, the Government will compete the task order in accordance with FAR 36.3, Two-Phase Design-Build Selection Procedures amongst the GC IDIQ master contract holders.

Question 282: Is the use of gas and/or propane powered lifting equipment permitted for raising and lowering equipment and materials inside of the building?

Answer 282: Yes, however per specification section 01 41 00.00 80, Advanced notification of equipment to be used on-site, which requires pre-use inspections, must be made at least 48 hours prior to intended use. Advance notification is required for scaffolding, lifting, blocking, fall protection, and mechanized equipment.

Question 283: Is soil for back-fill available on site? If so, how far is it from the project site?

Answer 283: No, per specifications section 31 23 00.00 20 paragraph 1.5 "CRITERIA FOR BIDDING" - Base bids on the following criteria: Suitable backfill and bedding material in the quantities required is not available at the project site.

Question 284: What is the cross section of the existing asphalt paving?

Answer 284: See detail 8 drawing C-24-7.

Question 285: The steel fabricator is listed as AISC Certified. Does the Steel Erector have to be AISC Certified Also?

Answer 285: No, reference specification section 05 12 00 paragraph 1.6.2.3 Welding Procedures and Qualifications.

Question 286: What is the thickness of the concrete base to be removed at C-24-1?

Answer 286: C-24-1 is a civil legend there are no concrete bases shown.

Question 287: What is the new pad thickness to be installed the chilled water pump equipment pad on detail 3 sheet S-24-73?

Answer 287: Per note 2 on drawing S-24-73, "Contractor to coordinate required equipment pad size with mechanical equipment selected.

Question 288: What is the thickness of the new chiller pad?

Answer 288: Reference S-24-6A note 1.

Question 289: Reference: Dwg. SD-24-9 - Regarding new raised grated floor, are there any existing thru roof access over the area of work to expedite the installation of the structural steel ? Or is the only point of entry through the existing overhead door on the south building elevation?

Answer 289: No, overhead door is the only access point.

Question 290: For bidding purposes, can the government provide the safety outline and hazards that the Building 24 Facility Manager/Operator presented to the group prior to entering the building 24 on January 7th site visit.

Answer 290: No, hazards are identified on the drawing and specifications.

Question 291: Is the coating on the chill water pumps CHWP 1 THRU 7 lead based paint?

Answer 291: No

Question 292: Option 3 is to include "floor covers" to allow for storage of heavy oil drums and other equipment parts. We do not have any detail on these covers, are they to be spill-containment pallets or just steel plate? And is the entire area to be covered or just a portion?

Answer 292: Anything to be stored in the area will come with its own spill-containment. The floor covers for the storage areas shall be steel plated. Enough floor covers shall be provided to cover the entire area. The specifications have been updated accordingly. (See attachment 7 paragraph 2.2.3.)

Question 293: In paragraph C.1 of Section C Description/Specification/Statement of Work, please clarify/define the type of work and/or support that is included in the requirement of 'environmental support' as stated in the last sentence.

Answer 293 This work includes but is not limited to removal of hazardous materials such as asbestos and lead paint.

Question 294: Drawing page E-24-6, Note 1 states that the Trench Instrument panel is provided by others. Who is providing it?

Answer 294: The construction contractor shall provide the Trench Instrument Panel. The drawing has been updated accordingly and is attached with this amendment. (See attachment 10g)

Question 295: C.1 Specifications/Statement of Work lists Building Information Modeling (BIM) as one of the items of work.

- a) Will BIM programming be required on all Task Orders, or for Design Build Projects only?
- b) If BIM is required for all Task Orders will NASA provide existing BIM programs and/or CAD plans of “existing buildings” or will we be required to start a BIM program from scratch on all Task Orders?

Answer 295: a) BIM will not be required on all Task Orders but may be required for projects other than Design Build.

b) NASA does not have BIM programs for existing buildings but CAD plans are available. However, in some cases the CAD plans are raster drawings or scans of drawings which were manually created making it difficult to manipulate.

Question 296: Regarding Specification Section Div. 13 10 50. 00 80, Fall Arrest and Fall Protection System: Will NASA please provide clarification on where this is located on the prints?

Answer 296: This specification refers to any work that require workers to walk on the roof of building 24 such as MD-24-232.

Question 297: On SD 24-6 is the only shown in the clouded area? Please clarify.

Answer 297: The only work applicable to drawing SD-24-6 is specified in the clouded areas.

Question 298: On SD 24-9 is the only shown in the clouded area? Please clarify.

Answer 298: The only work applicable to drawing SD-24-9 is specified in the clouded areas.

Question 299: Is course of construction / builders risk insurance required for this project?

Answer 299: No. Please refer to the solicitation for specific minimum insurance requirements.

Question 300: Please provide specification for roofing.

Answer 300: Roofing is covered throughout the specifications in section 13 10 50.00 80, section 02 41 00.00 80, section 03 30 00, section 01 74 19 and section 01 41 00.00 80. Also, see amendment 2 attachment 6 for the existing roof specifications.

Question 301: Specification section 02 41 00 part 1.2 indicates items for recycling shall be stored in covered bins within the construction site as shown on the drawings. Please provide the location where the bins are to be stored.

Answer 301: Bin locations will be identified by NASA post award. The specifications have been updated accordingly via this amendment. (See attachment 10b)

Question 302: Note 2 on drawing SD-24-3 indicates engineered shoring is required for the removal of the blow down tanks. Drawing C-24-8 indicates the tanks are 5'8" deep. OSHA does not require engineered shoring for excavations this shallow. Are engineered shoring drawings required?

Answer 302: Yes.

Question 303: When the project is complete a requirement for BIM is to leave the program for NASA. Is there a quantity of applications required?

Answer 303: This will be specified within the specific Task Order if BIM is required.

Question 304: What does "Easy Access" to the underground piping mean? It's noted on the Description of work and transactions, but the plans don't show any access panels on the site for the underground piping.

Answer 304: Easy access means one individual can remove the panels without heavy machinery. Reference drawing C-24-7 detail 7 that show access panels for the underground piping.

Question 305: Option 3 calls for floor covers Description of work and transactions, can a specification be provided?

Answer 305: No, the floor covers should be selected to match the floor grates.

Question 306: a. Are we to include the cost of abatement? If so please provide the Inspecting engineers report along with contact information to quantify the scope of work.

b. Are we to hire a hazardous material engineer to provide this report? If so how do we handle the cost of abating the hazardous materials if they are currently an unknown?

Answer 306: a. Abatement work is required under the model task order. As such, the offeror's price proposal should be reasonable for the work to be performed and reflect an understanding of the task order requirements. The reported abatement data can be found on drawing M-24-2.

b. No, see a. above.

Question 307: Will the Owner locate all underground utilities in the area or do we have to include the cost to locate the existing underground utilities? SAFETY FIRST

Answer 307: NASA will locate and mark existing utilities.

Question 308: Sheet E-24-50A calls out that the entire sheet is option 3, however option 3 is listed in the Description of work and transactions as raised sheet grated floor. This note appears to be incorrect. Which option should it be? It appears to be option 2 based on the equipment. Please clarify.

Answer 308: The reference to Option #3 on the drawing is in error, and should be option 2. The updated drawing is attached to this amendment. (See attachment 10h)

Question 309: Is the temporary by-pass Blow Down line to be underground or can it be above ground?

Answer 309: See notes 7 and 8 on drawing C-24-2.

Question 310: Sheet ED-24-6 has a note that the entire sheet is option 3, however option 3 is listed in the description of work and transactions as raised sheet grated floor. The work show appears to be base and option 2. Please clarify.

Answer 310: The reference to Option #3 on the drawing is in error. Please see the updated drawing attached to this amendment. (See attachment 10v)

Question 311: Sheet S-24-69 calls out a chiller service platform, but it does not show up on the floor plan drawings. What is the elevation and connection to design for the column to existing slab? Which side of the chiller does it go on, no directional arrow is provided.

Answer 311: Please see updated floorplan drawing M-24-233 attached to this amendment. (See attachment 10n)

Question 312: Sheet S-24-70 calls out for another chiller service platform, but it does not show up on the floor plan drawings. What is the elevation and connection design for the column connection to existing slab? Which side of the chiller does it go on, no directional arrow is provided. Also it is called out at Option 2, but the chiller is part of the base and steel grating is called out as Option 3.

Answer 312: Please see updated drawings M-24-233 and S-24-70 attached to this amendment (See attachment 10n and 10q)

Question 313: The details on sheet S-24-71 call out different options for details. This does not appear to be reflective of the Description of work and transactions. Please review and advise.

Answer 313: Please see the updated drawing attached to this amendment. (See attachment 10r)

Question 314: What is the foundation design for new column footings on the first floor?

Answer 314: Please see updated drawing S-24-70 attached to this amendment. Also, please see drawing S-24-71 for bolting requirements. (See attachment 10q and 10r).

Question 315: Sheet S-24-6A. The large clouded area to the top right of the page, what option is this cloud referencing or is it a revision to the sheet that was not identified.

Answer 315: The large clouded area on the top right of the page pertains to the entire model task order project (base and multiple options).

Question 316: Does the existing Carrier Chiller to be removed have any residual refrigerant that would need to be recovered?

Answer 316: Yes

Question 317: For bidding purposes, can the government provide the model number and serial number of the existing Carrier Chiller?

Answer 317: Carrier model# 17M44. Carrier Serial# 63106647.

Question 318: For bidding purposes, can the government provide the weight of the existing Carrier Chiller?

Answer 318: The chiller weight can be obtained from the manufacturer. Model and serial numbers have been provided.

Question 319: a. What type of refrigerant was used in the existing Carrier chiller to be removed?

b. For bidding purposes, can the government provide the MSDS sheets for the refrigerant was used in the existing Carrier chiller to be removed?

Answer 319: a. R-134A

b. Yes, please see attached. (See attachment 12).

Question 320: Reference: Dwg. - M-24-3, Regarding Option #2, the existing chilled water pumps data could not be accessed during the site visit due to the existing full jacket insulation, therefore provide the model number and serial number of the existing chilled water pumps, so we can verify the face to face connections with respect to the new Gould chilled water pumps? If the model number and serial number of the existing chilled water pumps are unavailable we will assume new Gould chilled water pumps are an exact fit.

Answer 320: The Model number given on drawing M-24-3 is assumed to be an exact replacement of the existing pump. Serial number is not available. However, it would be an incorrect assumption to assume the new pump will be an exact fit, since the pads are also being replaced. The new pump needs to meet the flow and head requirements and it is the contractor's responsibility to make sure the new pump aligns with the existing piping. The specifications and drawing M-24-3 have been updated via this amendment. (See attachment 7 paragraph 2.2.2 and attachment 10m)

Question 321: Reference Dwg. C-24-2 Demolition Note 5a. "Contractor to install temporary by-pass for boiler blowdown discharge from existing boiler pits 2, 3, 4, and 5 to Manhole N1049+26, E1051+00." Can the installation of the temporary by-pass boiler blowdown line run across the west concrete driveway exposed at the existing ground elevation? Are there any limitations as to how long the driveway can be blocked?

Answer 321: Yes, temporary utilities can be exposed per the requirements of general notes 7 and 8 drawing C-24-2. Driveway cannot be blocked.

Question 322: Reference C-24-1 blowdown pit sampling Note: "Based on the data obtained during the April 30, 2010, soil sampling event, NO further action is needed regarding soil contamination at the blowdown pits for B24. Reference C-24-2 Demolition Note: 5c. "Examine exposed soils from removal of the blow down tanks for signs of soil contamination".

What is the requirement for the type and kind of soil "examination" referenced on C-24-2 Demolition Note: 5c? Or do we follow C-24-1 blowdown pit sampling note "NO further action is needed regarding soil contamination at the blowdown pits for B24."?

Answer 322: Follow C-24-1 blowdown pit sampling note "NO further action is needed regarding soil contamination at the blowdown pits for B24." Drawing C-24-2 Demolition Note 5c has been corrected via this amendment and is attached. (See attachment 10f)

Question 323: What is the current mission schedule and how many missions are factored into the contract time?

Answer 323: The mission schedule can be found at the following website:
<http://www.nasa.gov/missions/highlights/schedule.html>

The model task order does not account for any missions, as the shuttle is scheduled to be grounded in April 2011. The task order, if awarded, will be awarded at a time subsequent to April 2011.

Question 324: S-24-6A note shows surface condenser equipment pad as Option 2, should this be Based bid?

Answer 324: The drawings were clouded in error. Please see the updated drawing S-24-6A attached with this amendment. (See attachment 10o)

Question 325: S-24-6A note shows CH-24-1 Equipment pad as Option 2, should this be base bid?

Answer 325: The drawings were clouded in error. Please see the updated drawing S-24-6A attached with this amendment. (See attachment 10o)

Question 326: SD-24-6 Removal of condenser equipment pads on Level 1 and existing equipment pad on Level 2 – noted for option #2, should this be base bid?

Answer 326: The drawings were clouded in error. Please see the updated drawing SD-24-6 attached with this amendment. (See attachment 10t)

Question 327: M-24-233 Penetrations between Columns B&C and 4&3 are not noted/detailed on SD-24-9. Please Provide.

Answer 327: M-24-233 and SD-24-9 conflict in location of penetrations. The drawings are corrected and updated per this amendment. (See attachments 10n and 10u)

Question 328: M-24-240 Detail B&A note HV62-RG/C-24-1, this is listed on Valve schedule on M-24-3 as “not used”.

Answer 328: HV62-RG on M-24-240 should be HV61-RG. Drawing M-24-240 is updated and attached to this amendment (See attachment 10x).

Question 329: C-24-2 Demolition note 5d references sheet “S-24-8” Detail 1, sheet is not set please provide.

Answer 329: Drawing C-24-2 Demolition note 5d should reference C-24-8 and not S-24-8. The drawing is updated and attached to this amendment (See attachment 10f).

Question 330: The pictures in the plans were printed unclear, will these photos be made available to bidders?

Answer 330: The referenced photos are included in the drawings package. Drawings may be purchased or viewed at the locations identified in solicitation section L.24 Attachment 3, Section 4.12 “Availability of Specifications and Drawings.

Question 331: For bidding purposes, can the government provide the Environmental Report used to identify quantity and location of hazardous material (if any) in an effort to reduce the cost contingencies of the Asbestos and Lead Abatement subcontractors?

Answer 331: The reported abatement data can be found on drawing M-24-2.

Question 332: a. Will the existing overhead crane in Building 24 be available for the contractors use for the purpose of raising and lowering materials and equipment for the project? If yes, what are the training requirements for operating the crane?

b. What are the requirements for removal and reinstallation of the existing grating at the access opening at the sound end of the second floor?

Answer 332: a. No, offerors should provide their own lifting devices.

b. See updated drawing SD-24-9 attached to this amendment. (See attachment 10u)

Question 333: What depth and size is the existing underground Blow Down Line? We need this information to price the excavation and removal.

Answer 333: Reference drawing C-24-6.

Question 334: What is the existing blow down line made of?

Answer 334: Carbon Steel

Question 335: Are color pictures available for sheet MD-24-241? The black and white does not allow the bidders to see when reproduced.

Answer 335: No, color pictures are not available

Question 336: a. Reference Dwg. M-24-237 - Detail 6, with respect to roof penetrations; is the roof currently under warranty?

b. For bidding purposes, can the government provide the company name, address, phone and point of contact?

Answer 336: a. Yes, the roof is still under warranty. Please refer to amendment 2, attachment 6.

b. Marton Roofing Industries Ltd.
5207 Ashbrook Drive
Houston, TX 77081-2903
(713) 664-7000

The point of contact can be obtained from the telephone number above.

Question 337: Reference: Dwg. MD-24-232 - For bidding purposes, can the government provide the height and width of the overhead door on the south building elevation between column lines: B-1 and C-1.

Answer 337: Approximately 15 feet 6" wide and 15 feet high.

Question 338: We anticipate removal of the glass & glazing on the west and east elevations for the (CLIN 1- Base Bid) removal and reinstallation of the chiller and (CLIN 4 Option 3) mezzanine structural steel. For bidding purposes, can the government provide the drawings for the building elevations showing the window sizes and the cross-section details of the window openings?

Answer 338: Yes, the drawings are attached to this amendment as requested however, they are provided for reference only. It is the contractor's responsibility to develop and provide a demolition plan for demolition and construction activities per specification section 01 33 00 and section 02 41 00.00 80 paragraph 1.2.1. (See attachments 13a through 13e).

Question 339: With respect to Specification Section 13 10 50.00 80 Fall Arrest and Fall Protection System. Where is this permanent fall protection system to be installed?

Answer 339: The fall arrest system already exists around the perimeter of the roof and is not required to be installed. Specification section 13 10 50.00 80 has been deleted per this amendment. Please reference specification section 01 41 00.00 80 paragraph 1.8.25 for fall protection requirements.

Question 340: The book of specifications includes Section 13 10 50.00 80 – Special Construction which requires a roof fall arrest system to be installed. There are no requirements on the drawings for this system. If this system is required to be part of the contract, in which base bid/ option is it to be included?

Answer 340: The fall arrest system already exists around the perimeter of the roof and is not required to be installed. Specification section 13 10 50.00 80 has been deleted per this amendment. Please reference specification section 01 41 00.00 80 paragraph 1.8.25 for fall protection requirements.

Question 341: Spec Section 13 10 50.00 80 calls for a Fall Arrest and Fall Protection System to be designed and Sole Sourced to Latchways "Mansafe" systems on the roof. There are no drawings to support this requirement. Will these be provided in an Addendum?

Answer 341: The fall arrest system already exists around the perimeter of the roof and is not required to be installed. Specification section 13 10 50.00 80 has been deleted per this amendment. Please reference specification section 01 41 00.00 80 paragraph 1.8.25 for fall protection requirements.

Question 342: Will the cost for the Fall Arrest and Fall Protection System be included in the Base Bid or one of the Options?

Answer 342: The fall arrest system already exists around the perimeter of the roof and is not required to be installed. Specification section 13 10 50.00 80 has been deleted per this amendment. Please reference specification section 01 41 00.00 80 paragraph 1.8.25 for fall protection requirements.

SOLICITATION, OFFER AND AWARD (Construction, Alteration or Repair)		1. SOLICITATION NO NNJ11353019R	2. TYPE OF SOLICITATION Negotiated (RFP)	3. DATE ISSUED 12/13/10	PAGE OF 1 23 PAGES
4. CONTRACT NO.		5. REQUISITION/PURCHASE NO. 4200353019R		6. PROJECT NO.	
7. ISSUED BY NASA/Johnson Space Center Attn: Anna Carter/BJ3 2101 NASA Parkway Houston, TX 77058-3696		CODE	8. ADDRESS OFFER TO NASA/Johnson Space Center Attn: Anna Carter/BJ3 2101 NASA Parkway Houston, TX 77058-3696		
9. FOR INFORMATION CALL: (Name) Anna Carter		(Phone) (281) 483-1869	(Fax)	(Electronic Mail Address)	

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

"Repair and Upgrade Central Heating and Cooling Plant, Building 24".

11. The Contractor shall begin performance within <u>10</u> calendar days and complete it within <u>771</u> calendar days after receiving <input type="checkbox"/> Award, <input checked="" type="checkbox"/> Notice to proceed. This performance period is <input checked="" type="checkbox"/> Mandatory, <input type="checkbox"/> Negotiable. See	
12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES," indicate within how many calendar days after award in Item 12.B.) YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	12B. CALENDAR DAYS 10

13. ADDITIONAL SOLICITATION REQUIREMENTS:

- A. Sealed offers in original and ___ copies to perform the work required are due at the place specified in item 8 by 1500 local time 02/23/2011.
- B. An offer guarantee X is, ___ is not required.
- C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.
- D. Offers providing less than 120 calendar days of Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14A. NAME, ADDRESS OF OFFEROR (Include ZIP Code)		15. TELEPHONE	(Fax)
		16. REMITTANCE ADDRESS (Include only if different than item 14.)	
CODE	FACILITY CODE		

17. The offerer agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due.

AMOUNTS

18. The offerer agrees to furnish any required payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the solicitation - give number and date of each.)	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER	20B. SIGNATURE	20C. OFFER DATE
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AWARD (To be completed by Government)

21. ITEMS ACCEPTED

22. AMOUNT	23 ACCOUNTING AND APPROPRIATION
24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	25. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: 41 U.S.C. 2034(c) <input type="checkbox"/> 41 U.S.C. 253(c) <input type="checkbox"/>
26. ADMINISTERED BY NASA/Johnson Space Center Attn: Anna Carter/BJ3 2101 NASA Parkway Houston, TX 77058-3696	27. PAYMENT WILL BE MADE BY

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any other continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document). Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30A. NAME OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN	31A. NAME AND TITLE OF CONTRACTING OFFICER Keshia Guinn	
30B. SIGNATURE	31B. UNITED STATES OF AMERICA	28. AWARD DATE
	30C. DATE	

Contract No.	Solicitation No. NNJ11353019R	Req/PR No. 4200353019R	Buyer Anna Carter
Additional Information			

(b) A current Mission Schedule (subject to change) is included as Attachment 3.1 "Center of Operations Directorate Mission Update" identified in Section 3, Attachments. The number of days allowed for Government delays is **64 days**. No extension of time will be given until these days have been exceeded. Contractor should expect security delays of up to 45 minutes when entering the site and allow for those delays, as no contract extension will be granted for these delays.

(End of clause)

2.3 52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK. (APR 1984)

The Contractor shall be required to (a) commence work under this contract within **10 calendar days** after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than **771 Calendar Days After The Noticed To Proceed**. The time stated for completion shall include final cleanup of the premises.

(End of clause)

2.4 52.211-12 LIQUIDATED DAMAGES - CONSTRUCTION. (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of **\$665** for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

2.5 PRINCIPAL PLACE OF PERFORMANCE

The effort required under this Task Order shall be performed at NASA-Johnson Space Center, Houston, Texas.

(End of clause)

2.6 52.223-3, HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997) ALTERNATE I (JUL 1995)

(b) The Offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

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needed repairs. The warranty period shall begin on the same date as final acceptance and shall continue for the full product warranty period.

1.8.1 Indexed Notebook

The Contractor shall furnish to the Contracting Officer a bound and indexed notebook containing a complete listing of all water chillers covered by a manufacturer's multi-year warranty. The chiller list shall state the duration of the warranty thereof, start date of the warranty, ending date of the warranty, location of the warranted equipment, and the point of contact for fulfillment of the warranty. This information shall be provided for each chiller and the recorded chiller serial numbers shall identify each chiller. Point of contact shall include the name of the service representative along with the day, night, weekend, and holiday phone numbers for a service call. The completed bound and indexed notebook shall be delivered to the Contracting Office prior to final acceptance of the facility. The Contractor shall furnish with each manufacturer's multi-year warranty the name, address, and telephone number (day, night, weekend, and holiday) of the service representative nearest to the location where the equipment is installed. Upon a request for service under the multi-year warranty, the service representative shall honor the warranty during the warranty period, and shall provide the services prescribed by the terms of the warranty.

1.8.2 Equipment Warranty Tags

At the time of installation, each item of manufacturer's multi-year warranted equipment shall be tagged with a durable, oil- and water-resistant tag, suitable for interior and exterior locations, resistant to solvents, abrasion, and fading due to sunlight. The tag shall be attached with copper wire or a permanent, pressure-sensitive, adhesive backing. The tag shall be installed in an easily noticed location attached to the warranted equipment. The tag for this equipment shall be similar to the following in format, and shall contain all of the listed information:

MANUFACTURER'S MULTI-YEAR WARRANTY EQUIPMENT TAG
Equipment/Product Covered: _____
Manufacturer: _____ Model No.: _____ Serial No.: _____
Warranty Period: From _____ to _____
Contract No.: _____
Warranty Contact: _____
Name: _____
Address: _____
Telephone: _____

STATION PERSONNEL SHALL PERFORM PREVENTIVE
MAINTENANCE AND OPERATIONAL MAINTENANCE

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

Chiller shall be single stage or multi-stage open design utilizing R-134a refrigerant. Chiller shall be identical or equal to the two existing steam turbine centrifugal chillers in Building 24, as manufactured by York. Seller shall provide a full charge of refrigerant and lubricants for each chiller.

Chiller manufacturer's package shall include:

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SECTION 01 01 90.00 80

PROJECT DESCRIPTION

PART 1 GENERAL

1.1 APPLICABILITY

The following is a general description of the work required and shall not be construed as a complete listing of all work required to satisfactorily complete the project as required by the contract drawings and other sections of these specifications.

1.2 DESCRIPTION

PART 2 PRODUCTS

2.1 BASE BID

The following tasks are included in the base bid:

Replace Chiller 24-1 - Replace existing 2,000-ton, steam turbine drive chiller and surface condenser with new 2,000-ton steam turbine drive chiller and surface condenser. A refurbished chiller, nor refurbished components shall not be acceptable. Chiller 24-1 is not currently operable and partially disassembled.

2.2 OPTIONS

2.2.1 Option 1

Upgrade Boiler Blowdown System including blow down pit, blow down piping, from the flash tank to the blow down pit, vent piping, and drain piping from the boiler pits to the sanitary sewer, and associated controls with a energy efficient system complete with flash tank and heat exchanger. The flash tank shall have man-way access for cleaning and inspection. Easy access to underground piping shall also be provided.

2.2.2 Option 2

Replace seven chilled water pumps and motors. Motors shall be provided with a heater. The new pumps shall meet the flow, head and other requirements outlined in the pump schedule of drawing M-24-3 and it shall be the installing contractors responsibility to make sure the new pump aligns with the existing piping.

2.2.3 Option 3

Construct option to install a raised grated floor above the existing boiler 1 pad to include floor covers to allow for storage of heavy oil drums and other equipment parts. Spare steel plate floor covers shall also be purchased in enough quantity to cover the entire new raised grated floor.

PART 3 EXECUTION

Not Used

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include the following major elements:

Certificates and associated documentation for Contractors to document compliance with the OSHA standard.

Procedures for establishment of engineering controls, and monitoring to ensure integrity of enclosures, equipment, etc.

Procedures for collecting waste and contaminated debris, in a manner to meet generator standards under State and Federal Solid Waste regulations and JSC Management Directives (8000.3, 8800.4 and 8837.1).

1.19 ASBESTOS CONTROL

1.19.1 New Asbestos Installation

JSC does not desire and will not allow the installation of new asbestos containing materials except in rare circumstances; see Section 01 41 00.00 80, paragraph 1.8.11.2.

1.19.2 Existing Asbestos Removal

Construction of this project involves incidental exposure to and or removal of asbestos containing materials (ACM). Asbestos is known to exist in spray applied structural and deck fireproofing insulation, sprayed or trowled on acoustical ceilings, pipe and boiler insulation, vinyl asbestos floor tiles (VAT), and asbestos transite pipes and wall boards. Asbestos dust and debris (contamination) have been found to exist in facilities where no visible deterioration of known asbestos products exist.

The Contractor shall comply with OSHA standards issued by the Secretary of Labor in 29 CFR 1926 and the JSC Safety and Health Handbook JPG 1700.1 current revision.

JPG 1700.1 Safety and Health Handbook Part 12 specifies minimum acceptable standards and procedures for all JSC asbestos related activities. It includes specific job specific performance requirements for the most common jobs at JSC. The standards and procedures set forth are consistent with health and safety standards and procedures in industry and those established by OSHA, EPA, and NASA. Other operations may involve asbestos even though they are not specifically cited in this manual.

Operations which are covered are typically those which require activities performed in close proximity to asbestos materials (return air plenums, raised computer floors, and mechanical rooms) or those activities which will disturb or will require removal of asbestos. Deviations to the Handbook's procedures will require written approval by the Contracting Officer.

JPG 1700.1 Safety and Health Handbook is available for review in the building 45 Technical Library and at <http://jschandbook.jsc.nasa.gov>. Additionally, the drawing set contains an Asbestos Schedule, which identifies the anticipated tasks involving asbestos containing materials.

It is the Contractor's responsibility to field verify existing conditions and quantities of ACM when abatement/removal is required. It is also the Contractor's responsibility to adhere to all applicable Federal, State, local, and NASA/JSC specifications.

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Dehydrate.

Furnish and charge oil and refrigerant. Trim refrigerant charge for optimum performance.

Driver-compressor cold and hot alignment.

Starter adjustments and checkout.

Operating Controls - Calibration, tests and operation.

Safety Controls - Calibration, tests and operation.

Seller shall provide a copy of the completed start-up record data of each chiller as part of the operation and maintenance manuals.

3.3 CLEANING AND ADJUSTING

Equipment shall be wiped clean, with all traces of oil, dust, dirt, or paint spots removed. Temporary filters shall be provided for all fans that are operated during construction, and new filters shall be installed after all construction dirt has been removed from the building. System shall be maintained in this clean condition until final acceptance. Bearings shall be properly lubricated with oil or grease as recommended by the manufacturer. Belts shall be tightened to proper tension. Control valves and other miscellaneous equipment requiring adjustment shall be adjusted to setting indicated or directed. Fans shall be adjusted to the speed indicated by the manufacturer to meet specified conditions. Testing, adjusting, and balancing shall be as specified in Section 23 05 93 TESTING, ADJUSTING, AND BALANCING.

3.4 FIELD ACCEPTANCE TESTING

3.4.1 Test Plans

- a. Manufacturer's Test Plans: Within 120 calendar days after contract award, submit the following plans:

- (1) Water chiller - field acceptance test plan

Field acceptance test plans shall be developed by the ~~absorption~~ *remove* chiller manufacturer detailing recommended field test procedures for that particular type and size of equipment. Field acceptance test plans developed by the installing Contractor, or the equipment sales agency furnishing the equipment, will not be acceptable.

The Contracting Officer will review and approve the field acceptance test plan for each of the listed equipment prior to commencement of field testing of the equipment. The approved field acceptance tests of the ~~absorption~~ *remove* chiller and subsequent test reporting.

- b. Coordinated testing: Indicate in each field acceptance test plan when work required by this section requires coordination with test work required by other specification sections. Furnish test procedures for the simultaneous or integrated testing of tower system controls which interlock and interface with controls factory prewired or external controls for the equipment provided under Section 13 41 00 PROGRAMMABLE LOGIC CONTROLLER.
- c. Test procedure: Indicate in each field acceptance test plan each equipment manufacturers published installation, start-up, and field acceptance test procedures. Include in each test plan a

1.4 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK

The Contractor will be required to commence work under this Contract within 10 calendar days after the date of receipt by him of notice to proceed, to prosecute work diligently, and to complete the entire work ready for use within 771 calendar days after the date of receipt by him of the notice to proceed. The time stated for completion shall include final cleanup of the premises.

Updated Sched,

1.5 CONTRACT DRAWINGS AND SPECIFICATIONS

Five sets of full-size Contract drawings and specifications will be furnished the Contractor without charge except for applicable publications incorporated into the specifications by reference. Additional sets of drawings and specifications will be furnished on request at the cost of reproduction. The work shall conform to the following Contract drawings, all of which form a part of these specifications.

<u>Title</u>	<u>Drawing Number</u>
COVER SHEET	M-24-0
INDEX SHEET	M-24-1
MECHANICAL LEGEND	M-24-2
MECHANICAL SCHEDULES	M-24-3
DEMOLITION FIRST FLOOR PLAN	MD-24-232
DEMOLITION PARTIAL SECOND FLOOR PLAN	MD-24-20
FIRST FLOOR PLAN	M-24-232
PARTIAL SECOND FLOOR PLAN	M-24-233
ENLARGED NEW WORK BLOWDOWN TANKS	M-24-235
DETAILS	M-24-236
SECTIONS C-24-1, CHWP-24-1, SC-24-1	M-24-240
MECHANICAL SECTIONS	M-24-241
SECTION BOILERS	M-24-29C
SEQUENCE OF OPERATIONS	M-24-243
MECHANICAL CONTROLS PLC LOGIC SCREENS	M-24-247
MECHANICAL CONTROLS VENDOR DEVELOPED SCREENS	M-24-248
MECHANICAL CONTROLS POINTS LIST	M-24-249
PARTIAL P&ID'S CHILLED WATER PUMPS AND SC-24-1	M-24-252
PARTIAL P&ID INTERMITTENT & CONTINUOUS BLOWDOWN SYSTEM	M-24-253
DEMOLITION 1ST FLOOR POWER PLAN	ED-24-6
DEMOLITION 2ND FLOOR & MEZZANINE POWER PLAN	ED-24-7
SWG-24-2 ONE LINE DIAGRAM	E-24-2B
MCC-24-1 ONE LINE DIAGRAM	E-24-2C
SWG-24-4 ONE LINE DIAGRAM	E-24-2E
1ST FLOOR POWER PLAN	E-24-6
2ND FLOOR & MEZZANINE POWER PLAN	E-24-7
SCHEMATIC DIAGRAM AND CKT SCHEDULE MCC-24-1 AND 2	E-24-48
SCHEMATIC DIAGRAM AND CKT SCHEDULE SWG-24-1 AND 2	E-24-50
SCHEMATIC DIAGRAMS SWG-24-4	E-24-50A
CONDUIT AND CABLE SCHEDULE	E-24-301
FIRST FLOOR DEMO PLAN & EQUIPMENT FOUNDATION DETAILS	SD-24-3
FIRST & SECOND FLOOR EQUIPMENT DEMO PLANS	SD-24-6
SECOND FLOOR SLAB STRUCTURAL PLAN	S-24-5
SECOND FLOOR FRAMING PLAN & DETAILS	S-24-9
CHILLER 1 PLATFORM PLAN - FRAMING PLAN & SECTIONS	S-24-69
CHILLER 1 PLATFORM PLAN - FRAMING PLAN & SECTIONS	S-24-70

Items for re-cycling shall be stored in covered bins within the construction site located in area to be determined by the Government.

1.2.1 Demolition Plan

Prepare a Demolition Plan and submit proposed demolition, and removal procedures for approval before work is started. Include in the plan procedures for careful removal and disposition of materials specified to be turned over to the Government, coordination with other work in progress, a disconnection schedule of utility services, a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Except for items listed in paragraph entitled, ITEMS TO BE TURNED OVER TO THE GOVERNMENT, of this section, the contractor shall remove all materials and equipment from the facility and recycle to the maximum extent possible. Coordinate with Waste Management Plan. Plan shall be approved by the Contracting Officer prior to work beginning.

1.2.2 General Requirements

Do not begin demolition or deconstruction until authorization is received from the Contracting Officer. The work of this section is to be performed in a manner that maximizes recycling of materials. Remove rubbish and debris from the project site daily; do not allow accumulations inside or outside the buildings. The work includes demolition, of identified items and materials, and removal of resulting rubbish and debris. Remove rubbish and debris from Government property daily, unless otherwise directed. Store materials that cannot be removed daily in areas specified by the Contracting Officer.

1.3 ITEMS TO REMAIN IN PLACE

Take necessary precautions to avoid damage to existing items to remain in place, or to remain the property of the Government. Repair or replace damaged items as approved by the Contracting Officer. Coordinate the work of this section with all other work indicated. Construct and maintain shoring, bracing, and supports as required. Ensure that structural elements are not overloaded. Increase structural supports or add new supports as may be required as a result of any cutting, removal, deconstruction, or demolition work performed under this contract. Do not overload structural elements. Provide new supports and reinforcement for existing construction weakened by demolition, deconstruction, or removal work. Repairs, reinforcement, or structural replacement require approval by the Contracting Officer prior to performing such work.

1.3.1 Existing Construction Limits and Protection

Do not disturb existing construction beyond the extent indicated or necessary for installation of new construction. Provide temporary shoring and bracing for support of building components to prevent settlement or other movement. Provide protective measures to control accumulation and migration of dust and dirt in all work areas. Remove dust, dirt, and debris from work areas daily.

1.3.2 Weather Protection

For portions of the building to remain, protect building interior and materials and equipment from the weather at all times. Where removal of existing roofing is necessary to accomplish work, have materials and

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2.5 SURFACE CONDENSER AND CONDENSATE RECOVERY PACKAGE

The package includes a shell-and-tube surface condenser and condensate recovery package factory assembled on a common structural steel skid.

2.5.1 Construction

The condenser shall be a shell and tube type designed to condense the turbine exhaust steam at .2 inches of Hg less than the turbine outlet design, using cooling water leaving the chiller condenser shell, when turbine is supplying 105 percent of chiller design brake horsepower.

Condenser waterside fouling factor shall be per ARI Standard 550/590 (1998). Steam side exhaust pressure shall be -2.65 in. Hg., 150 degrees F.

The waterside shall be ASME code construction welded steel designed for 150 PSIG maximum working pressure. The tubes shall be 3/4 inch OD 18 BWG copper roller-expanded into tube sheets. The tube velocity will not exceed the maximum of 10 ft./sec. The tube sheets shall be constructed of steel. Intermediate tube supports shall be supplied to support tubes. Water boxes shall be marine type (channels) made of steel and shall be welded or bolted into place and have removable cover plates. Lifting lugs shall be provided for vertical and/or horizontal rigging. The steam-side (shell-side) of the condenser shall be designed for 15 PSIG and 30 inches Hg vacuum.

2.5.2 Steam Condenser Hotwell

The condenser hotwell includes a water start-up connection to prime the condensate pumps and downstream piping. Two pneumatic flow control valves (Fisher or approved equal), recirculation and overboard, shall be included. The recirculation control valve opens a plug valve with increasing air pressure and closes with air failure. The overboard control valve closes a plug valve with increasing air pressure and opens with air failure. An external level controller shall be included to monitor the hotwell condensate level. High and low water level shall be monitored within the chiller control system, production display warnings and alarms on water levels outside level limit. Control panel screen shall display high and low level open/closed positions, and condensate level in the hotwell. The alarm system includes an operational alarm that sounds the alarm bell and light indicator. An alarm bell silencing switch is also included. Penberthy combination magnetic level indicator and transmitter shall be provided.

2.5.3 Condensate Recovery Package

A factory packaged condensate system is to condense turbine steam at a sub-atmospheric pressure in order to minimize steam usage. It shall be capable of drawing the condenser down to an operating pressure in approximately 10 minutes. It also will maintain a vacuum of 1 inch Hg less than design steam condensing pressure, or the lowest required operating pressure, whichever is lower, during normal part load operation. Minimum pressure is to be 1 inch Hg Absolute. It consists of two liquid ring vacuum pumps. The vacuum pump systems each include a pump, motor, motor controller, and accessories. The pump shall be constructed of cast iron with a bronze impeller. Accessories include discharge water separator, silencer, flow switch, vacuum gage, pressure gage and adjusting cock. An atmospheric relief valve, water-seal type with external handwheel, shall be included and sized in accordance with applicable Heat Exchanger Standards for Protection. Hotwell pumps shall be single-stage, end suction suitable

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for hotwell service. Both pumps shall be sized for 100% capacity. Chiller control system shall provide the ability to alternate pump sets, both vacuum and hotwell pumps, on each chiller startup.

2.5.4 Controls

All power and control wiring will be brought to a common point in a NEMA-1 (minimum) enclosure, for one power connection to the chiller.

2.5.5 Miscellaneous Equipment

An expansion joint with stainless steel bellows shall be included and shipped separately for field installation in the steam line between the turbine exhaust and the surface condenser inlet.

2.5.6 Instrumentation

Temperature sensors shall be located at the cooling water inlet and cooling water outlet with temperatures displayed on the chiller control panel. A pressure gauge shall be located on the hotwell pump common discharge line. A pressure sensor shall be located at the steam exhaust and pressure displayed on the control panel screen.

2.6 COOLER AND CONDENSER HEAT EXCHANGERS

Fabricate cooler and condenser heat exchangers with high performance copper tubes, steel shell and steel tube sheets with 150 psig rated fabricated steel water boxes.

Provide marine water boxes on condenser and evaporator.

Evaporator fouling factor shall be per ARI Standard 550/590 (1998).
Condenser fouling factor shall be per ARI Standard 550/590 (1998).

Provide 0.75 inch outside diameter copper tubes with wall thickness of 0.028 inch measured at the fin root. Roll individual replaceable tubes into the tube sheets. Expand cooler tubes into intermediate support sheets. Exterior tube enhancements will be interrupted at each tube sheet intermediate support.

Provide refrigerant pressure relief valves, size all relief valves with allowance for back pressure from relief vent piping provided by others. Refrigerant vent piping will be same size as relief valve connection, routed to roof, approximate equivalent length of 200 feet.

Furnish water boxes with vent and drain connections. Provide 150 psig flanges capped for shipment. Include steel baffles welded within the water box to prevent bypass and provide the required pass arrangement.

2.7 CHILLER CONTROL SYSTEM

2.7.1 General

The chiller shall be provided with a self-contained programmable logic controller (PLC) based control system. This control system shall provide all start-up, automatic capacity control, shutdown, and equipment protection logic as required for proper operation of the chiller.

The chiller control system shall be housed in a control panel mounted

ASBESTOS HAZARD
 CONTRACTOR SHALL BE RESPONSIBLE FOR THE ASBESTOS ABATEMENT PROJECT TO DETERMINE WHERE POSSIBLE ASBESTOS HAZARDS EXIST AS OF THIS DATE.

CONTRACTOR SHOULD USE CAUTION WHERE EXISTING INSULATION IS DISTURBED AND REPORT ALL SUSPECT ASBESTOS HAZARDS TO NESA FOR IMMEDIATE TESTING AND DO NOT PROCEED WITH DEMOLITION WHERE POSITIVE ASBESTOS HAZARDS EXIST.

- THE FOLLOWING SPECIFIC EQUIPMENT WAS TESTED FOR ASBESTOS HAZARD:
- BLOWDOWN PUMP TANK INSULATION - NEGATIVE
 - BLANKET INSULATION - NEGATIVE
 - 50-24-1 BRASS PIPE INSULATION - NEGATIVE
 - CHRYSLER - NEGATIVE
 - WRITE VALUE INSULATION - POSITIVE (4% CHRYSLER)

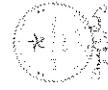
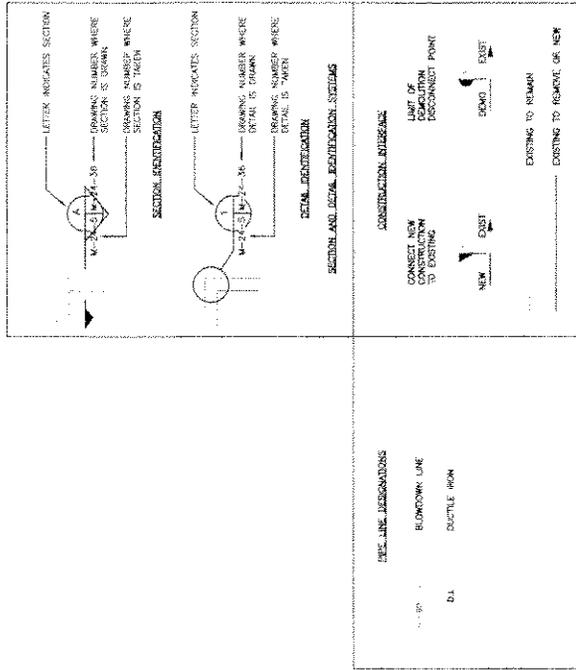
COORDINATION OF CONSTRUCTION WITH NESA

CONTRACTOR SHALL COORDINATE WITH NESA REGARDING ASBESTOS ABATEMENT WITH NESA PERSONNEL THIS INCLUDES, BUT IS NOT LIMITED TO, THE SCHEDULE OF DEMOLITION AND NEW CONSTRUCTION INCLUDED IN THE CONTRACT. CONTRACTOR SHALL COORDINATE WITH NESA PERSONNEL AND NESA OPERATIONS TO LOWEST POSSIBLE LEVEL.

UNDER NO CIRCUMSTANCES SHALL CONTRACTOR TAKE ANY OPERATING EQUIPMENT OR ANY EQUIPMENT REMOVED FOR REPAIRS OR TO BE REPAIRED, OUT OF SERVICE WITHOUT ADVISED NOTIFICATION AND APPROVAL OF NESA PERSONNEL. NO MORE THAN ONE ENLER MAY BE OUT OF SERVICE AT ANY GIVEN TIME.

BLOWDOWN PIT SAMPLING

NESA HAS CONDUCTED SOIL SAMPLING AND TESTING OF REPRESENTATIVE FOR THE POSSIBLE PRESENCE OF METALS AND ESPECIALLY FOR HEXAVALENT CHROMIUM. THE ANALYTICAL DATA INDICATED THAT THERE ARE NO METALS FROM THE BLOWDOWN PITS AT BEN. BASED ON THE DATA OBTAINED DURING THE TESTING, CONTRACTOR SHALL CONDUCT SOIL SAMPLING AND TESTING DURING THE BLOWDOWN SOIL CONTAMINATION AT THE BLOWDOWN PITS FOR BEN.

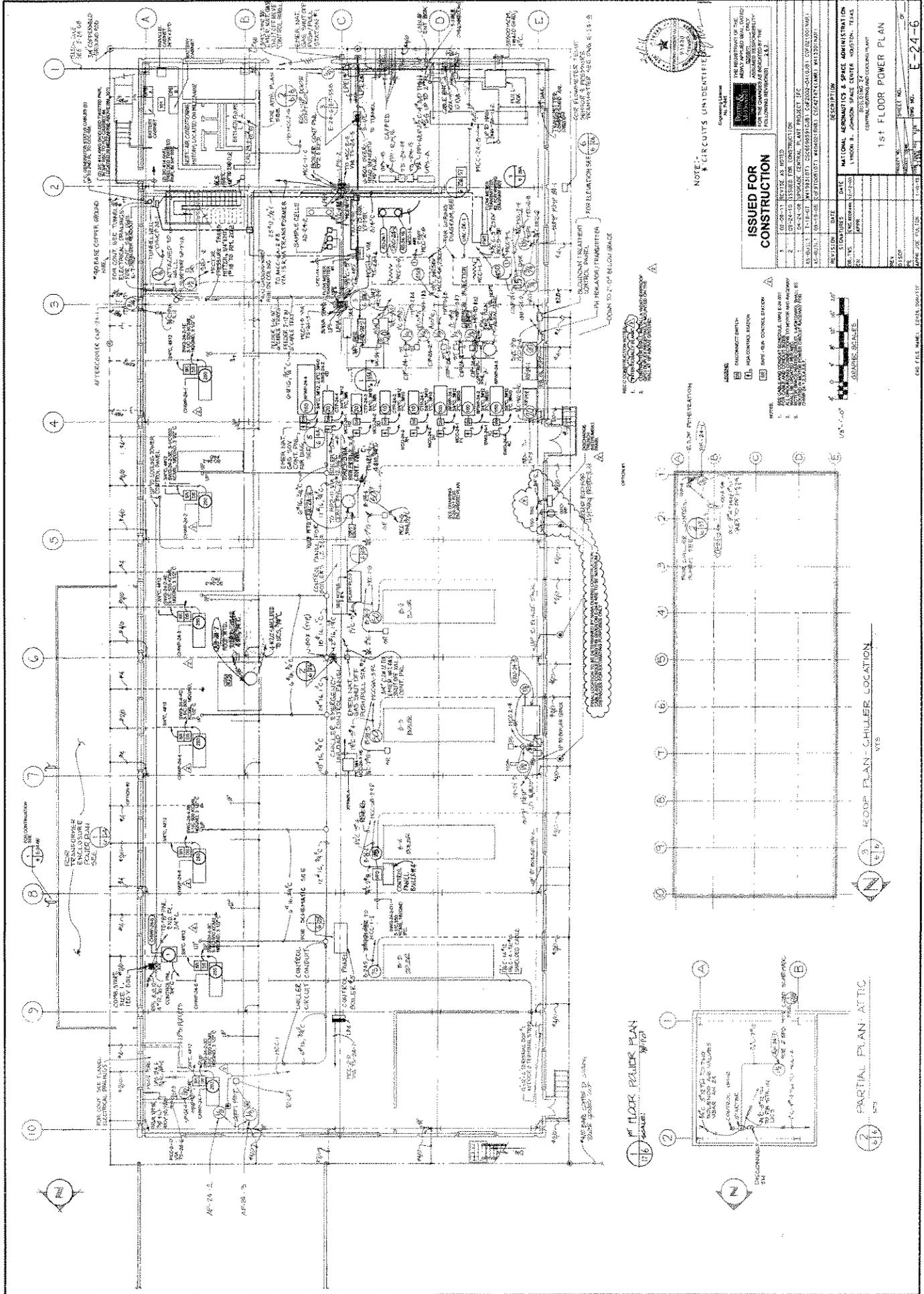


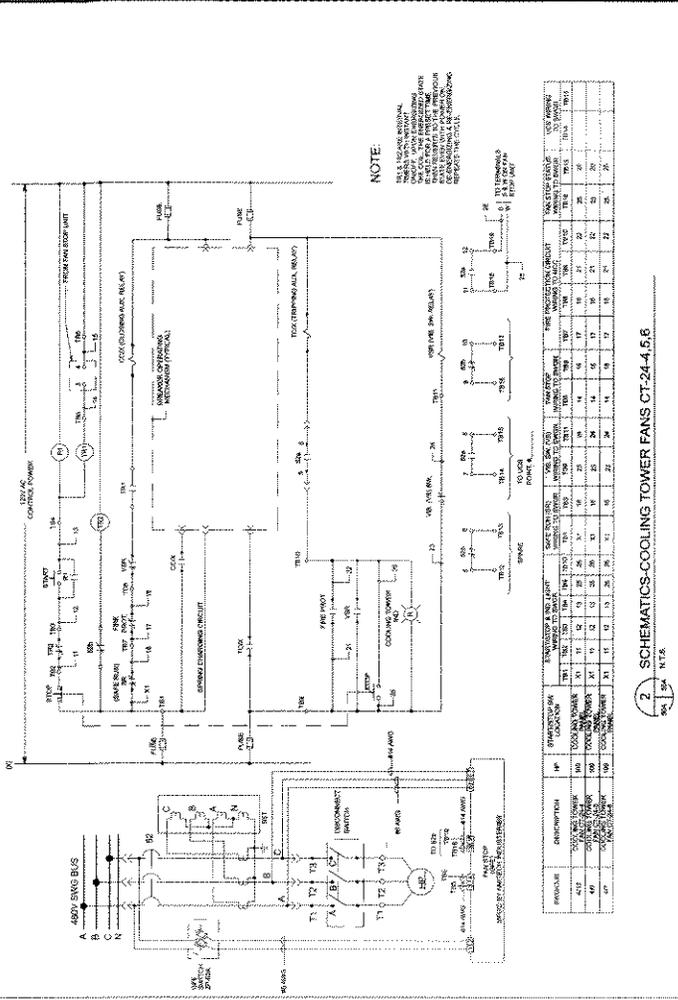
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REVISIONS

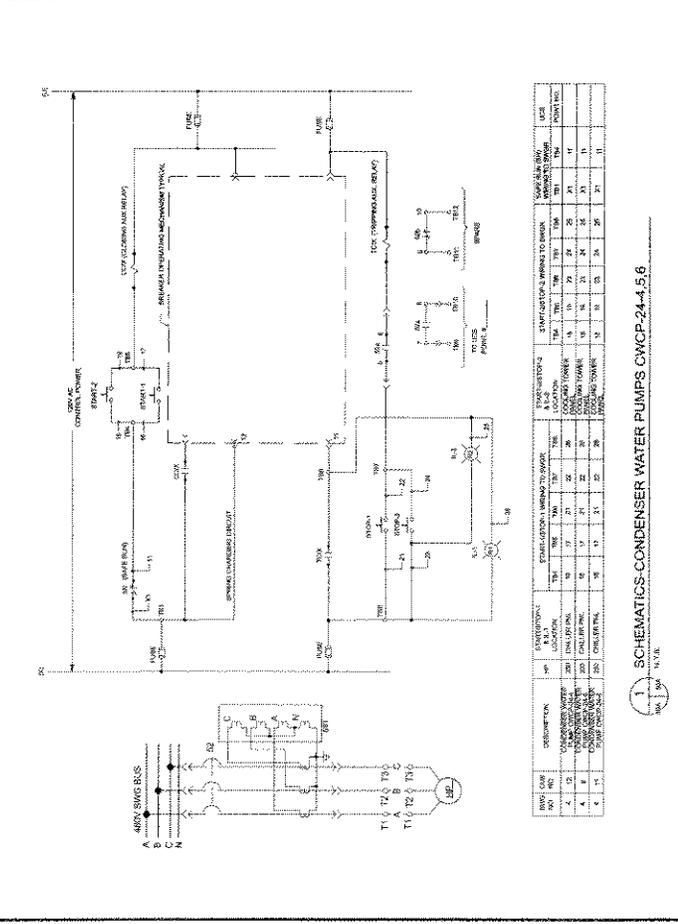
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9	08/11/13	ISSUE FOR CONSTRUCTION
10	08/11/13	ISSUE FOR CONSTRUCTION

DESIGNED BY: JAMES J. ...
 CHECKED BY: ...
 DATE: 08/11/13
 PROJECT: ...
 SHEET NO.: ...
 DRAWING NO.: ...

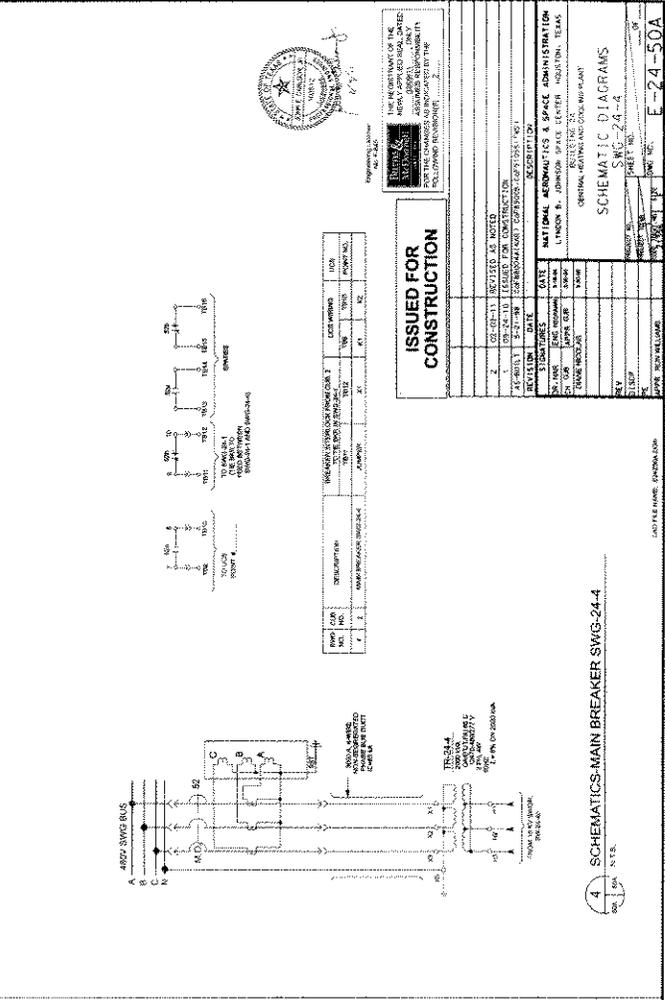


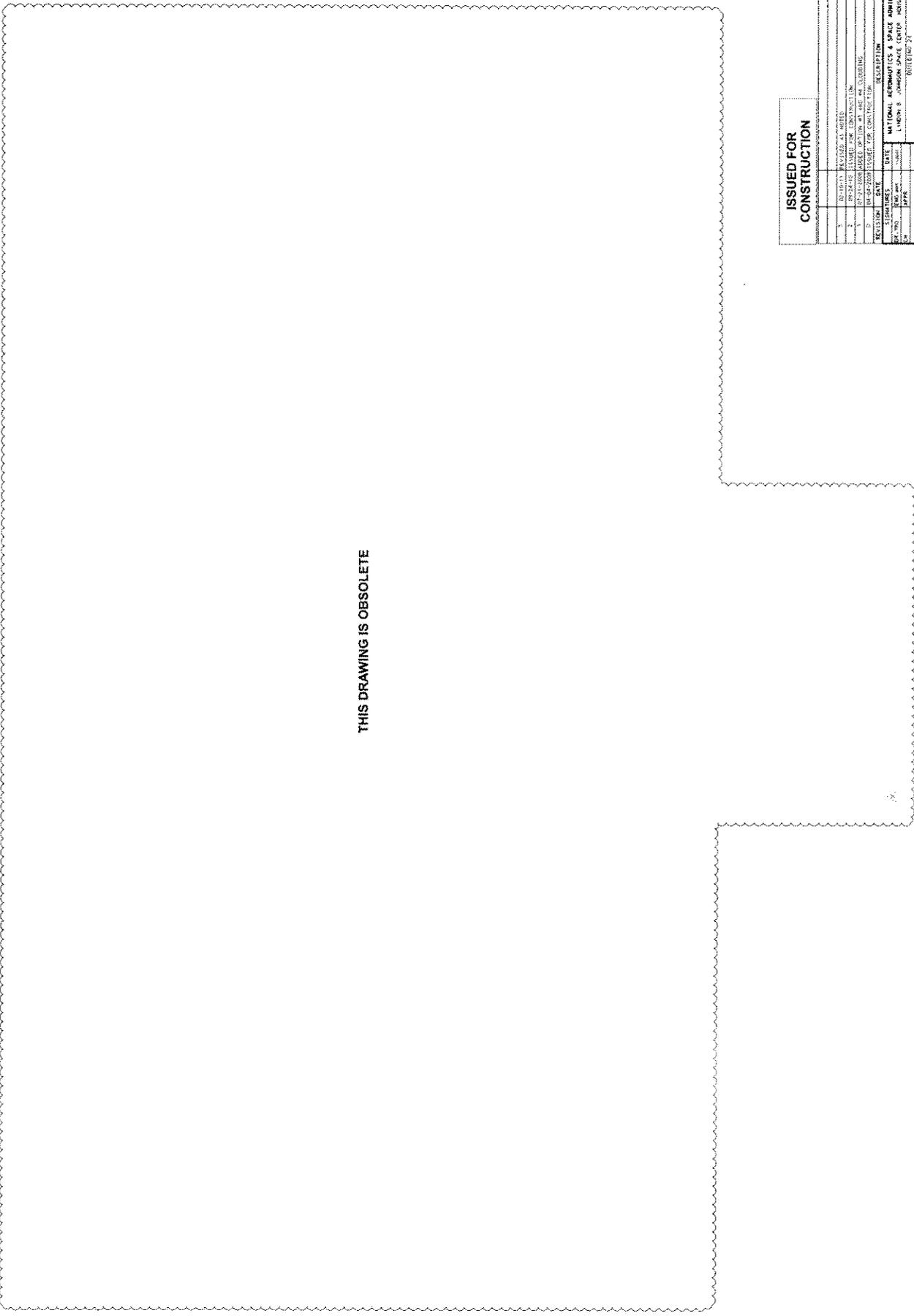


2 SCHEMATICS-COOLING TOWER FANS CT-24-4.5.6



1 SCHEMATICS-CONDENSER WATER PUMPS CWCP-24-4.5.6





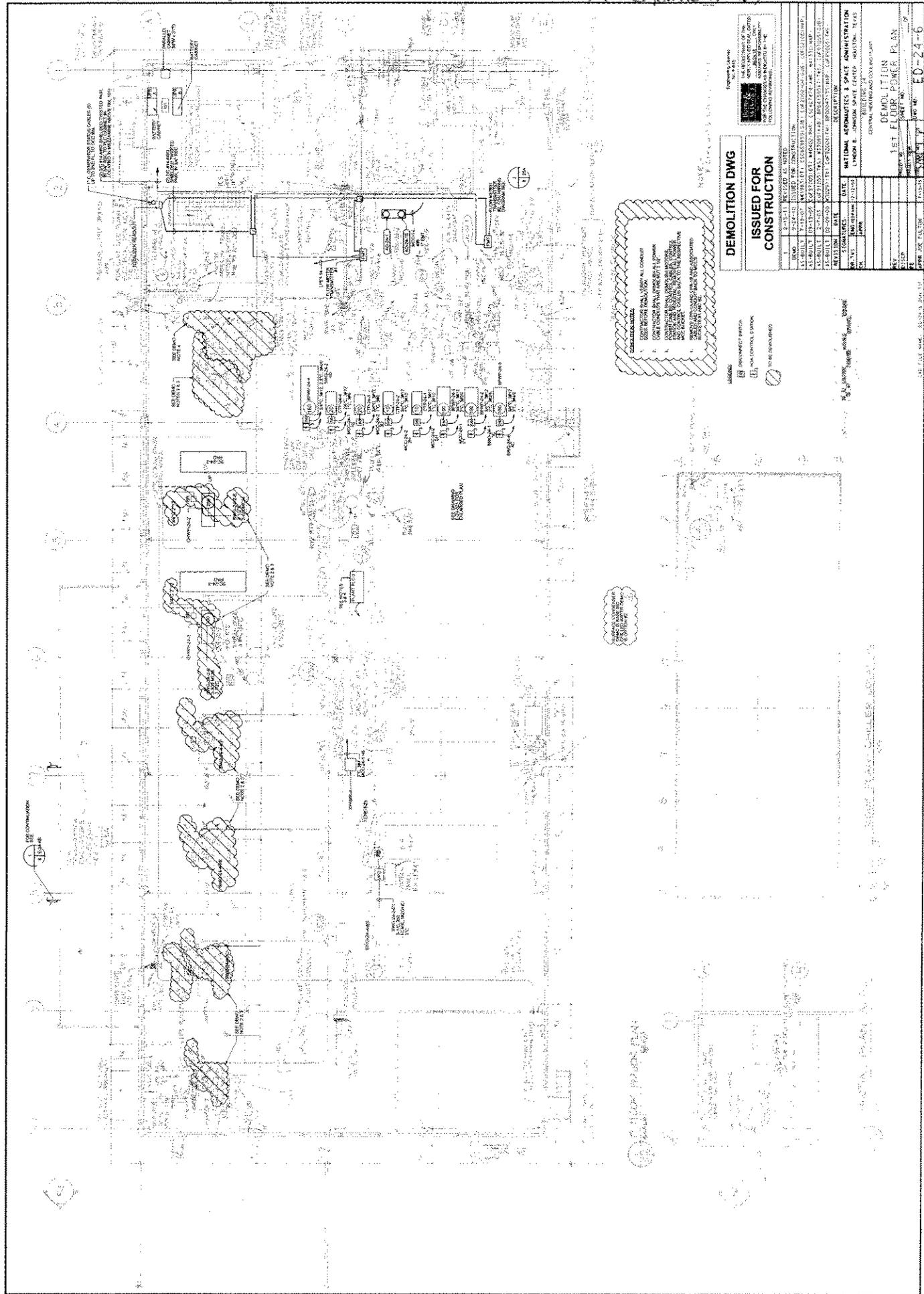
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**CENOUT ROUTING PLAN
FIRST FLOOR**

PROJECT NO. **E-24-320**



DEMOLITION
 1. REMOVE EXISTING WALLS
 2. REMOVE EXISTING CEILING
 3. REMOVE EXISTING FLOOR
 4. REMOVE EXISTING ROOF
 5. REMOVE EXISTING MECHANICAL ROOM
 6. REMOVE EXISTING ELECTRICAL ROOM
 7. REMOVE EXISTING PLUMBING ROOM
 8. REMOVE EXISTING STAIRS
 9. REMOVE EXISTING ELEVATOR
 10. REMOVE EXISTING CORE

**DEMOLITION DWG
 ISSUED FOR
 CONSTRUCTION**

NO.	DATE	DESCRIPTION
1	11-11-11	REVISED TO SHOWN
2	11-11-11	REVISED TO SHOWN
3	11-11-11	REVISED TO SHOWN
4	11-11-11	REVISED TO SHOWN
5	11-11-11	REVISED TO SHOWN
6	11-11-11	REVISED TO SHOWN
7	11-11-11	REVISED TO SHOWN
8	11-11-11	REVISED TO SHOWN
9	11-11-11	REVISED TO SHOWN
10	11-11-11	REVISED TO SHOWN

**DEMOLITION DWG
 ISSUED FOR
 CONSTRUCTION**

DATE: 11-11-11
 TIME: 11:11 AM
 PROJECT: 11-11-11
 SHEET NO: 11-11-11
 SCALE: 1/8" = 1'-0"

**DEMOLITION DWG
 ISSUED FOR
 CONSTRUCTION**

DATE: 11-11-11
 TIME: 11:11 AM
 PROJECT: 11-11-11
 SHEET NO: 11-11-11
 SCALE: 1/8" = 1'-0"

The total small business goal, expressed as a percent of total contract value including options, is 25 percent. The small business percentage goal, includes the following goals expressed as a percent of total contract value:

Small Disadvantaged Business Concerns	<u>4</u>	percent
Woman-Owned Small Business Concerns	<u>6</u>	percent
HUBZone Small Business Concerns	<u>3</u>	percent
Veteran-Owned Small Business Concern	<u>5</u>	percent
Service-Disabled, Veteran-Owned Small Business Concern	<u>3</u>	percent
HBCU's (includes other minority institutions)	<u>0</u>	percent

(End of clause)

H.8 RESERVED

SUVA 134A
 DUPONT
 JSC MSDS # 20963



The MSDS format adheres to the standards and regulatory requirements of the United States and may not meet regulatory requirements in other countries.

DuPont
 Material Safety Data Sheet

Page 1

2187FR "SUVA" 134a
 Revised 18-APR-2007

CHEMICAL PRODUCT/COMPANY IDENTIFICATION

Material Identification

Corporate MSDS Number : DU000693
 CAS Number : 811-97-2
 Formula : CH2FCF3
 CAS Name : "SUVA" 134a

Tradenames and Synonyms

HFC 134a
 VT1505

Company Identification

MANUFACTURER/DISTRIBUTOR
 DuPont Fluoroproducts
 1007 Market Street
 Wilmington, DE 19898

JSC MSDS # 20963

PHONE NUMBERS

Product Information : 1-800-441-7515 (outside the U.S.
 302-774-1000)
 Transport Emergency : CHEMTREC 1-800-424-9300 (outside U.S.
 703-527-3887)
 Medical Emergency : 1-800-441-3637 (outside the U.S.
 302-774-1000)

COMPOSITION/INFORMATION ON INGREDIENTS

Components

Material	CAS Number	%
ETHANE, 1,1,1,2-TETRAFLUORO- (HFC-134a)	811-97-2	100

HAZARDS IDENTIFICATION

Potential Health Effects

INHALATION

ETHANE, 1,1,1,2-TETRAFLUORO-

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Material Safety Data Sheet

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(HAZARDS IDENTIFICATION - Continued)

Gross overexposure may cause: Central nervous system depression with dizziness, confusion, incoordination, drowsiness or unconsciousness. Irregular heart beat with a strange sensation in the chest, "heart thumping", apprehension, lightheadedness, feeling of fainting, dizziness, weakness, sometimes progressing to loss of consciousness and death. Suffocation, if air is displaced by vapors.

SKIN CONTACT

ETHANE, 1,1,1,2-TETRAFLUORO-

Immediate effects of overexposure may include: Frostbite, if liquid or escaping vapor contacts the skin.

EYE CONTACT

ETHANE, 1,1,1,2-TETRAFLUORO-

"Frostbite-like" effects may occur if the liquid or escaping vapors contact the eyes.

ADDITIONAL HEALTH EFFECTS

ETHANE, 1,1,1,2-TETRAFLUORO-

Increased susceptibility to the effects of this material may be observed in persons with pre-existing disease of the: central nervous system, cardiovascular system.

Carcinogenicity Information

None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

FIRST AID MEASURES-----
First Aid

INHALATION

If high concentrations are inhaled, immediately remove to fresh air. Keep person calm. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

SKIN CONTACT

In case of contact, immediately flush skin with plenty of water for at least 15 minutes, while removing contaminated clothing and shoes. Call a physician. Wash contaminated clothing before reuse. Treat for frostbite if necessary by gently warming affected area.

EYE CONTACT

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Material Safety Data Sheet

Page 3

(FIRST AID MEASURES - Continued)

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Call a physician.

INGESTION

Ingestion is not considered a potential route of exposure.

Notes to Physicians

Because of possible disturbances of cardiac rhythm, catecholamine drugs, such as epinephrine, should only be used with special caution in situations of emergency life support.

FIRE FIGHTING MEASURES

Flammable Properties

Flash Point : No flash point

Flammable Limits in Air, % by Volume:

LEL : None per ASTM E681

UEL : None per ASTM E681

Autoignition : >743 C(>1369 F)

Fire and Explosion Hazards:

Cylinders may rupture under fire conditions. Decomposition may occur.

Contact of welding or soldering torch flame with high concentrations of refrigerant can result in visible changes in the size and color of torch flames. This flame effect will only occur in concentrations of product well above the recommended exposure limit; therefore stop all work and ventilate to disperse refrigerant vapors from the work area before using any open flames.

HFC-134a is not flammable in air at temperatures up to 100 deg. C (212 deg. F) at atmospheric pressure. However, mixtures of HFC-134a with high concentrations of air at elevated pressure and/or temperature can become combustible in the presence of an ignition source. HFC-134a can also become combustible in an oxygen enriched environment (oxygen concentrations greater than that in air). Whether a mixture containing HFC-134a and air, or HFC-134a in an oxygen enriched atmosphere become combustible depends on the inter-relationship of 1) the temperature 2) the pressure, and 3) the proportion of oxygen in the mixture. In general, HFC-134a should not be allowed to exist with air above atmospheric pressure or at high temperatures; or in an oxygen enriched environment. For example HFC-134a should NOT be mixed with air under pressure for leak testing or other purposes.

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Material Safety Data Sheet

Page 4

(FIRE FIGHTING MEASURES - Continued)

Experimental data have also been reported which indicate combustibility of HFC-134a in the presence of certain concentrations of chlorine.

Extinguishing Media

Use media appropriate for surrounding material.

Fire Fighting Instructions

Cool tank/container with water spray. Self-contained breathing apparatus (SCBA) may be required if cylinders rupture or release under fire conditions.

Water runoff should be contained and neutralized prior to release.

ACCIDENTAL RELEASE MEASURES

Safeguards (Personnel)

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Ventilate area, especially low or enclosed places where heavy vapors might collect. Remove open flames. Use self-contained breathing apparatus (SCBA) if large spill or leak occurs.

HANDLING AND STORAGE

Handling (Personnel)

Use with sufficient ventilation to keep employee exposure below recommended limits.

Handling (Physical Aspects)

HFC-134a should not be mixed with air for leak testing or used for any other purpose above atmospheric pressure. See Flammable Properties section. Contact with chlorine or other strong oxidizing agents should also be avoided.

Storage

Store in a clean, dry place. Do not heat above 52 C (126 F).

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Material Safety Data Sheet

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(HANDLING AND STORAGE - Continued)

Valve protection caps and valve cutlet threaded plugs must remain in place unless container is secured with valve outlet piped to use point. Do NOT drag, slide or roll cylinders. Use a suitable hand truck for cylinder movement. Never attempt to lift cylinder by its cap. Use a pressure reducing regulator when connecting cylinder to lower pressure (>3000 psig) piping or systems. Do NOT heat cylinder. Use a check valve or trap in the discharge line to prevent hazardous back flow into the cylinder.

Cylinders should be stored upright and firmly secured to prevent falling or being knocked over. Separate full containers from empty containers. Storage area temperatures should not exceed 125 deg F (52 deg C) and should be free of combustible materials. Avoid area where salt or other corrosive materials are present. Avoid excessive inventory and storage time. Use a first-in first-out system. Keep accurate inventory records.

EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls

Normal ventilation for standard manufacturing procedures is generally adequate. Local exhaust should be used when large amounts are released. Mechanical ventilation should be used in low or enclosed places. Refrigerant concentration monitors may be necessary to determine vapor concentrations in work areas prior to use of torches or other open flames, or if employees are entering enclosed areas.

Personal Protective Equipment

Impervious gloves and chemical splash goggles should be used when handling liquid.

Under normal manufacturing conditions, no respiratory protection is required when using this product.

Self-contained breathing apparatus (SCBA) is required if a large release occurs.

Exposure Guidelines

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Material Safety Data Sheet

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Exposure Limits

"SDVA" 134a

PEL (OSHA)	: None Established
TLV (ACGIH)	: None Established
AEL * (DuPont)	: 1000 ppm, 8 & 12 Hr. TWA
WEEL (AIHA)	: 1000 ppm, 8 Hr. TWA

* AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits which are lower than the AEL are in effect, such limits shall take precedence.

PHYSICAL AND CHEMICAL PROPERTIES

Physical Data

Boiling Point	: -26.5 C (-15.7 F) @ 736 mm Hg
Vapor Pressure	: 96 psia @ 25 C (77 F)
Vapor Density	: 3.6 (Air=1.0) @ 25 C (77 F)
% Volatiles	: 100 WT%
Solubility in Water	: 0.15 WT% @ 25 C (77 F) @ 14.7 psia
Odor	: Ether (slight).
Form	: Liquified Gas.
Color	: Colorless.
Liquid Density	: 1.21 g/cm3 @ 25 C (77 F)
Specific Gravity	: 1.208 @ 77 F (25 C)

Evaporation Rate : (CCL4 = 1); greater than 1

STABILITY AND REACTIVITY

Chemical Stability

Stable.

Conditions to Avoid

Avoid open flames and high temperatures.

Incompatibility with Other Materials

Incompatible with alkali or alkaline earth metals - powdered Al, Zn, Be, etc.

Decomposition

Decomposition products are hazardous. This material can be decomposed by high temperatures (open flames, glowing metal surfaces, etc.) forming hydrofluoric acid and possibly carbonyl fluoride.

These materials are toxic and irritating. Contact should be avoided.

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(STABILITY AND REACTIVITY - Continued)

Polymerization

Polymerization will not occur.

TOXICOLOGICAL INFORMATION

Animal Data

ETHANE, 1,1,1,2-TETRAFLUORO-

EYE:

A short duration spray of vapor produced very slight eye irritation.

SKIN:

Animal testing indicates this material is a slight skin irritant, but not a skin sensitizer.

INHALATION:

4 hour, ALC, rat: 567,000 ppm.

Single exposure caused: Cardiac sensitization, a potentially fatal disturbance of heart rhythm associated with a heightened sensitivity to the action of epinephrine.

Lowest-Observed-Adverse-Effect-Level for cardiac sensitization:

75,000 ppm. Single exposure caused: Lethargy. Narcosis.

Increased respiratory rates. These effects were temporary.

Single exposure to near lethal doses caused: Pulmonary edema.

Repeated exposure caused: Increased adrenals, liver, spleen weight. Decreased uterine, prostate weight. Repeated dosing of higher concentrations caused: the following temporary effects - Tremors. Incoordination.

CARCINOGENIC, DEVELOPMENTAL, REPRODUCTIVE, MUTAGENIC EFFECTS:

In a two-year inhalation study, HFC-134a, at a concentration of 50,000 ppm, produced an increase in late-occurring benign testicular tumors, testicular hyperplasia and testicular weight. The no-effect-level for this study was 10,000 ppm. Animal data show slight fetotoxicity but only at exposure levels producing other toxic effects in the adult animal. Reproductive data on male mice show: No change in reproductive performance. Tests have shown that this material does not cause genetic damage in bacterial or mammalian cell cultures, or in animals. In animal testing, this material has not caused permanent genetic damage in reproductive cells of mammals (has not produced heritable genetic damage).

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ECOLOGICAL INFORMATION

Ecotoxicological Information

AQUATIC TOXICITY:

48 hour EC50 - Daphnia magna: 980 mg/L.

96 hour LC50 - Rainbow trout: 450 mg/L

DISPOSAL CONSIDERATIONS

Waste Disposal

Contaminated HFC-134a can be recovered by distillation or removed to a permitted waste disposal facility. Comply with Federal, State, and local regulations.

TRANSPORTATION INFORMATION

Shipping Information

DOT/IMO

Proper Shipping Name : 1,1,1,2-TETRAFLUOROETHANE

Hazard Class : 2.2

UN No. : 3159

DOT/IMO Label : NONFLAMMABLE GAS

Shipping Containers

Tank Cars.

Tank Trucks.

Ton Tanks.

Cylinders.

REGULATORY INFORMATION

U.S. Federal Regulations

TSCA Inventory Status : Reported/Included.

TITLE III HAZARD CLASSIFICATIONS SECTIONS 311, 312

Acute : Yes

Chronic : Yes

Fire : No

Reactivity : No

Pressure : Yes

HAZARDOUS CHEMICAL LISTS

SARA Extremely Hazardous Substance: No

CERCLA Hazardous Substance : No

SARA Toxic Chemical : No

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Material Safety Data Sheet

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OTHER INFORMATION

NFPA, NPCA-HMIS

NPCA-HMIS Rating
Health : 1
Flammability : 0
Reactivity : 1

Personal Protection rating to be supplied by user depending on use conditions.

Additional Information

MEDICAL USE: CAUTION: Do not use in medical applications involving permanent implantation in the human body. For other medical applications see DuPont CAUTION Bulletin No. H-50102.

The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.

Responsibility for MSDS : MSDS Coordinator
> : DuPont Fluoroproducts
Address : Wilmington, DE 19898
Telephone : (800) 441-7515

Indicates updated section.

This information is based upon technical information believed to be reliable. It is subject to revision as additional knowledge and experience is gained.

End of MSDS

ABBREVIATIONS

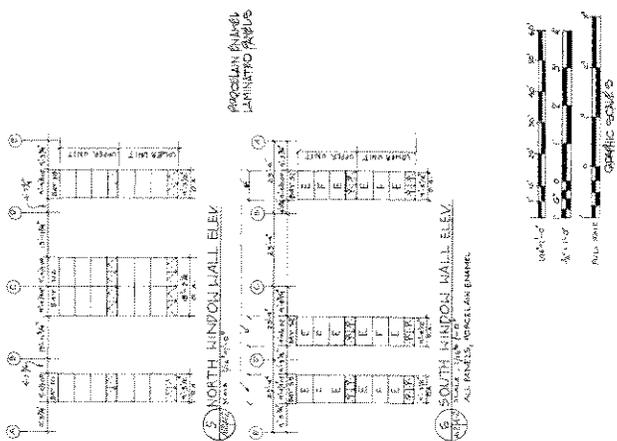
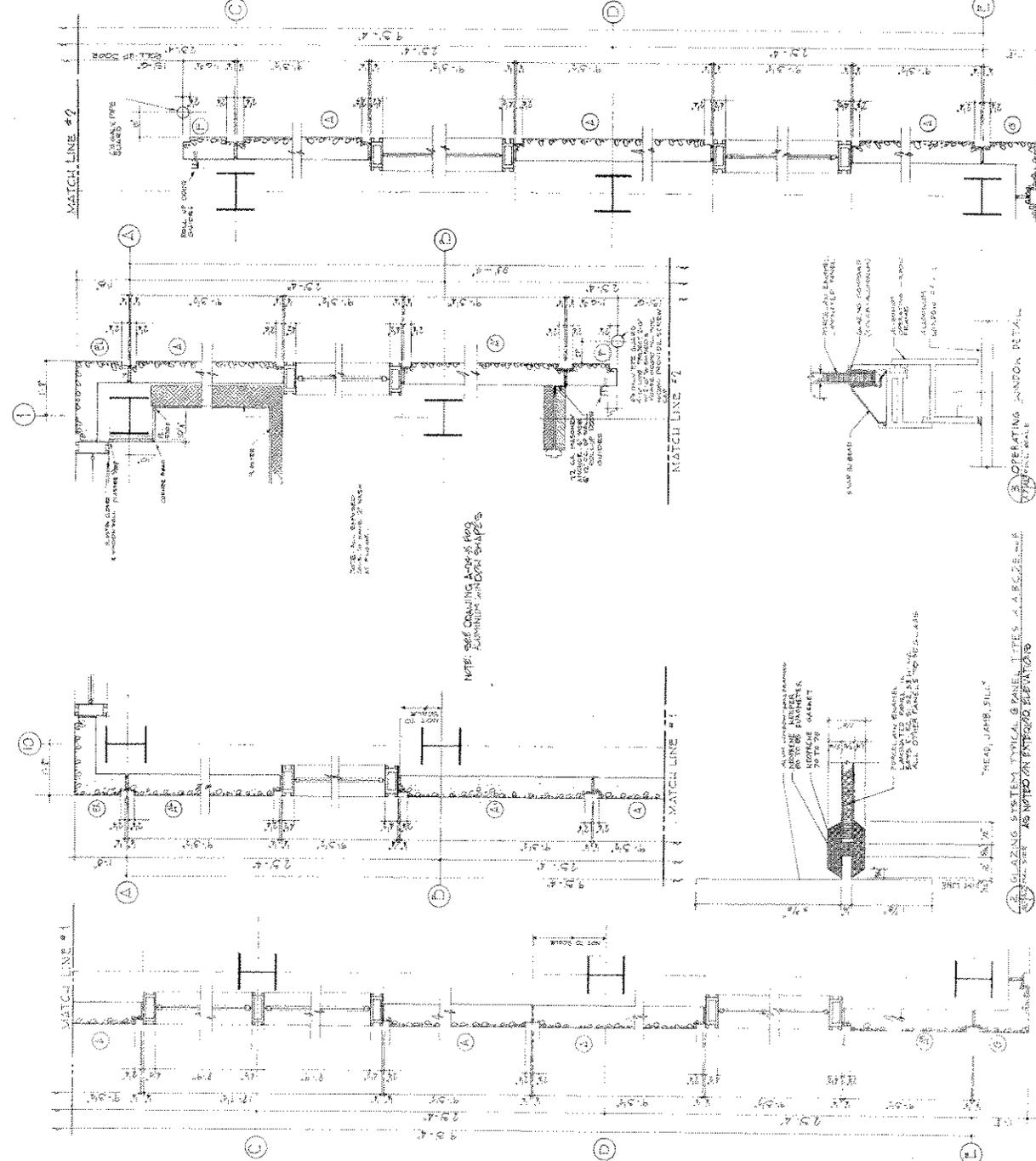
○ A	OVERALL SIZE DIM.
○ B	FINISH DIM.
○ C	STRUCTURAL DIM.

FIXED WINDOW PANEL KEY

TYPE	FINISH	GLASS	OPERATING	FRAME	FINISH
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7

OPERATING WINDOW PANEL KEY

TYPE	FINISH	GLASS	OPERATING	FRAME	FINISH
1	1	1	1	1	1
2	2	2	2	2	2
3	3	3	3	3	3
4	4	4	4	4	4
5	5	5	5	5	5
6	6	6	6	6	6
7	7	7	7	7	7



PROJECTIONS

DATE	DESCRIPTION
11/11/11	ISSUE FOR PERMIT

OWNER
U.S. ARMY ENGINEER DISTRICT, FORT WORTH
1001 WORTH AVENUE
FORT WORTH, TEXAS 76102

ARCHITECT
MANNED SPACECRAFT CENTER
NATIONAL AERONAUTICS & SPACE ADMINISTRATION
4815 LEE ROAD, SUITE 1000
FORT WORTH, TEXAS 76102

ARCHITECTURAL
DATE: 11/11/11
DRAWN BY: [Signature]
CHECKED BY: [Signature]
SCALE: AS SHOWN



ENG. (NARS) - 443,631

SOLICITATION, OFFER AND AWARD (Construction, Alteration or Repair)		1. SOLICITATION NO NNJ11353019R	2. TYPE OF SOLICITATION Negotiated (RFP)	3. DATE ISSUED 12/13/10	PAGE OF 1 138 PAGES
4. CONTRACT NO.		5. REQUISITION/PURCHASE NO. 4200353019R		6. PROJECT NO.	
7. ISSUED BY NASA/Johnson Space Center Attn: Anna Carter/BJ3 2101 NASA Parkway Houston, TX 77058-3696		CODE	8. ADDRESS OFFER TO NASA/Johnson Space Center Attn: Anna Carter/BJ3 2101 NASA Parkway Houston, TX 77058-3696		
9. FOR INFORMATION CALL: (Name) Anna Carter		(Phone) (281) 483-1869	(Fax)	(Electronic Mail Address)	

SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, identifying no., date):

Multiple Award General Construction Indefinite-Delivery, Indefinite-Quantity Contracts - Large Projects at Johnson Space Center, Ellington Field and Sonny Carter Training Facility, Houston, TX and White Sands Test Facility, Las Cruces, NM.

11. The Contractor shall begin performance within _____ calendar days and complete it within _____ calendar days after receiving <input type="checkbox"/> Award, <input checked="" type="checkbox"/> Notice to proceed. This performance period is <input checked="" type="checkbox"/> Mandatory, <input type="checkbox"/> Negotiable. See	
12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> (if "YES," indicate within how many calendar days after award in Item 12.B.)	12B. CALENDAR DAYS

13. ADDITIONAL SOLICITATION REQUIREMENTS:

- A. Sealed offers in original and _____ copies to perform the work required are due at the place specified in item 8 by 1500 local time 02/23/2011.
- B. An offer guarantee _____ is, is not required.
- C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.
- D. Offers providing less than ___120_____ calendar days of Government acceptance after the date offers are due will not be considered and will be rejected.

OFFER (Must be fully completed by offeror)

14A. NAME, ADDRESS OF OFFEROR (Include ZIP Code)		15. TELEPHONE	(Fax)
		16. REMITTANCE ADDRESS (Include only if different than item 14.)	
CODE	FACILITY CODE		

17. The offerer agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due.

AMOUNTS

18. The offerer agrees to furnish any required payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS (The offeror acknowledges receipt of amendments to the solicitation - give number and date of each.)	AMENDMENT NO.	DATE	AMENDMENT NO.	DATE

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER	20B. SIGNATURE	20C. OFFER DATE
--	----------------	-----------------

AWARD (To be completed by Government)

21. ITEMS ACCEPTED

22. AMOUNT	23 ACCOUNTING AND APPROPRIATION
24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM G.5
25. AUTHORITY FOR USING OTHER THAN FULL AND OPEN COMPETITION: 41 U.S.C. 2034(c) <input type="checkbox"/> 41 U.S.C. 253(c) <input type="checkbox"/>	
26. ADMINISTERED BY NASA/Johnson Space Center Attn: Anna Carter/BJ3 2101 NASA Parkway Houston, TX 77058-3696	27. PAYMENT WILL BE MADE BY

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office) Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any other continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document). Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
---	---

30A. NAME OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN	31A. NAME AND TITLE OF CONTRACTING OFFICER Keshia Guinn	
30B. SIGNATURE	31B. UNITED STATES OF AMERICA	28. AWARD DATE
30C. DATE		

Attachment 14

Amendment 6, NNJ11353019R

Contract No.	Solicitation No. NNJ11353019R	Req/PR No. 4200353019R	Buyer Anna Carter
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Additional Information

in advance of the proposal submission.

(End of provision)

L.19 COMMUNICATIONS REGARDING SOLICITATION AND SUBMISSION OF OFFERS.

A. COMMUNICATIONS REGARDING THIS SOLICITATION

(a) Questions or comments regarding this solicitation must be submitted in writing, cite the solicitation number, and be directed to the following Government representative:

Name:	Anna Carter	Phone:	281-483-1869
Address:	2101 NASA Parkway	Fax:	281-483-9741
	Mail Code: BJ3	Email:	anna.carter-1@nasa.gov
	Houston, TX 77058-3696		

Oral questions will not be answered due to the possibility of misunderstanding or misinterpretation.

Questions regarding this solicitation are due to the Government Representative no later than January 14th, 2011, at 2:00 p.m. Central Standard Time.

(b) Questions or comments should be submitted by the date above to allow for analysis and dissemination of responses. Late questions or comments are not guaranteed a response prior to the proposal due date. The Contracting Officer will issue a written amendment to this solicitation to answer questions. Offerors are ENCOURAGED to submit questions **prior to** the Pre-proposal Conference/Site Visit.

(c) Questions or comments shall not be directed to the technical activity personnel.

(End of provision)

B. SUBMISSION OF OFFERS

Proposal volumes I, II and III, including Past Performance Questionnaires, shall be submitted no later than 3:00 p.m. Central Standard Time on February 23, 2011.

Proposals must be marked and delivered in accordance with Section L.18 Proposal Marking and Delivery.

(End of provision)

L.20 SMALL BUSINESS UTILIZATION SUBFACTOR.

All Offerors, except small businesses, must complete the portion of the instructions under Small Business Subcontracting specific to the Small Business Subcontracting Plan (Ref. (1) below). (Small businesses are not required to submit Small Business Subcontracting Plans; however, small businesses are required to indicate the amount of effort proposed to be done by a small business either at the prime level or at the first tier subcontract level.)

On the day of the Pre-Proposal Conference/Site Visit, Offerors should report directly to the Gilruth Center for badging.

4.8 SUBMISSION OF OFFERS

Offers shall be submitted **no later than 3:00 p.m. Central Standard Time on February 23, 2011.**

Proposals must be marked and delivered in accordance with 4.9 Proposal Marking and Delivery.

4.9 JSC 52.215-109 PROPOSAL MARKING AND DELIVERY. (JUN 2007)

(a) Methods of Proposal Delivery

Proposals shall be delivered to the designated proposal receiving office by one of the following methods:

U.S. Postal Service
Commercial Delivery Service
Delivery by company employee or other individual agent

Regardless of the method of delivery chosen, the offeror is responsible for delivery of the proposal to the designated receiving office no later than the date and time stated on the Standard Form 26, 33, 1442 etc. of the solicitation.

(b) External Marking of Proposal Package(s)

All proposal packages must be closed, sealed, and marked in large letters "**PROPOSAL – DELIVER UNOPENED**". Proposals packages must include the solicitation number, the contracting officer's name, mail code/stop, and the offeror's name and address clearly marked on the outside of the package.

The offeror shall include a notice on the cover of the proposal package as follows:
"NOTICE: THIS PROPOSAL MUST BE DELIVERED TO THE SPECIFIED ADDRESS NO LATER THAN (OFFEROR—ENTER DATE AND TIME)."

(c) Delivery Address

Proposals must be delivered to the address/location specified on the Standard form 26, 33, 1442, etc. of the solicitation.

Proposals submitted by commercial delivery service or hand carried packages must be delivered to:
NASA Johnson Space Center
2101 NASA Parkway
Houston, TX 77058-3696
Central Receiving, Bldg 421

JSC Central Receiving can only be accessed through JSC Gate 4, which is located off Space Center Boulevard. Offerors are cautioned that the delivery process may require an hour or more for packages to be screened through security and subsequently transported and delivered